AMERICAN
Cinematographer
☆ THE MOTION PICTURE CAMERA MAGAZINE ☆
25¢
FOREIGN 35c

In This Issue . . .

Proper Placing of Reflectors

Titles Tell the Story

MARCH
1944

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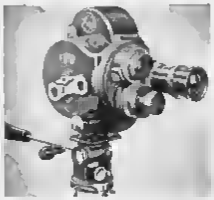

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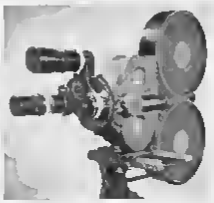

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AMERICAN CINEMATOGRAPHER

THE MOTION PICTURE CAMERA MAGAZINE

VOL. 25 MARCH, 1944 NO. 3

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The Front Cover

THIS behind the scenes shot on the set of Paramount's "Lady in the Dark" production shows Ginger Rogers posing for her portrait, while Warner Baxter stands alongside. At the Technicolor camera is Director of Photography, Ray Rennahan, A.S.C. Director Mitchell Leisen stands beside the camera with a portable microphone.

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FOR WAR (AND PEACE) BUY BONDS

Bergen, The Cameraman

By W. G. C. BOSCO

RESIDENTS of Hollywood and Beverly Hills are treated these gasless days to the sight of a gallant figure in helmet and goggles, and wearing a leather jerkin, dashing around town on a gleaming motorcycle. Sometimes alone, but more frequently with a passenger on the luggage carrier to help push when the motorcycle breaks down. This ration-conscious rider is none other than that paragon of patter peddlers, that ace of entertainers, Edgar Bergen, associate member of the A.S.C.

To the great world outside Hollywood, and there's one there chums, most of the members of the American Society of Cinematographers remain, due to the inequalities of credit titles, anonymous. But everyone knows member Edgar Bergen, if only as the stooge to Charley McCarthy. The audience that listens to his program every Sunday night over N.B.C. is estimated by those mean sprited people who are envious of his success to be in the neighborhood of thirty million. His friends concede it to be closer to a hundred million. But whatever it is, any good poll honestly taken, would have to put the Great Bergen at the top of the list.

It is not for his radio following however, nor even for his great personal charm that Edgar enjoys membership in that august body the A.S.C. He is a highly skilled cameraman who practiced the art professionally at one time owns a battery of cameras and who, for the last fourteen years, has held a membership card in the New York local of the Motion Picture Cameraman's Union. In fact Bergen became interested in the intricacies of cameras long before he delved into the more remunerative art of ventriloquism.

As a boy, in his home town of Decatur, Michigan, he became the proud possessor of a box camera and made his first pictures on blue-print paper. Then he acquired a plate camera. The only one, it seems, in that thriving metropolis at the time. And he made an honest dollar or so taking pictures of immigrant members of the community who had to have them for citizenship purposes. He also photographed school groups. Not all the pictures he took in those days, he recalls, were good. But one of those that were not so good turned out to have a market value after all.

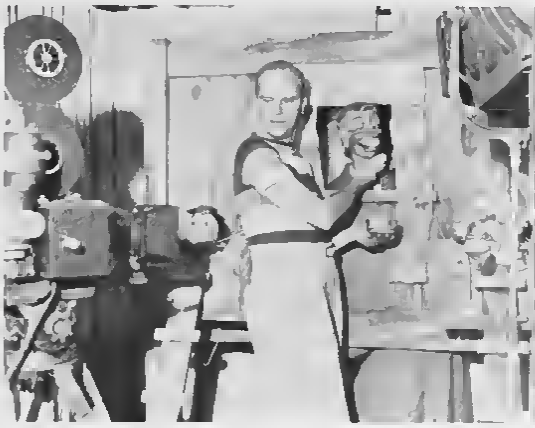
When he was ushering at Decatur's old La Pearl Theatre, where later on he got to run the projector also, he took a picture of the front of the house with the object in view of selling it to the owner. But something went wrong. When he put it out in the sun to dry, the emulsion slipped, and the horrible result can best be left to the imagination. Before he could conveniently dispose of this misadventure the owner saw it. Manfully, Bergen stood up under the gales of laughter which greeted what was to have been his masterpiece. He was astonished when the man gave him twenty dollars. But when the picture appeared in advertisements, testifying to the earth-shaking theatre collapsing, laughter evoked by the current comedy screening at the La Pearl, he understood.

His first motion picture camera was a Sept, which he bought to take to Europe when he went as as entertainer with the Swedish-American Line. The idea was to shoot a travelogue of the places visited on the trip, and speculate on selling the footage. But when he arrived in Europe he found that he would have to pay a duty on the footage he wanted to bring out of the various countries. That he decided was carrying speculation too far. So he developed the film in little portable tanks, and brought it out, wound around his waist, under his shirt.

The film record he made on the trip to Iceland, Sweden and Norway up to North Cape, he sold to the steamship line.

When he wasn't traveling to Europe or throwing his voice about, Bergen used to go to small towns and make advertising pictures to be shown on the local screen. You know the sort of thing: a shot of the outside of Hoffenfephfer's Delicatessen, but to a shot inside the store of the most amiable and genial Mr. Hoffenfephfer in person gorgeously tonsored, and horribly polite, waiting on a timid female who smiles wanly into the lense as she exits, followed by a title admonishing the audience to be sure and drop in on the way home and get something indigestible.

The year before last, when Edgar made a trip to Alaska and the Aleutians to entertain the troops he hit on a wonderful idea for a picture. The service men in those lonely outposts were hungry for a sight of home, and American girls



On opposite page is Mr. Bergen making up a nurse who appears in one of his films dealing with nursing art. On same page is a nurse in a scene from one of the nursing pictures. On this page top left, is Mr. Bergen in his studio preparing to shoot some pictures of his amazing "dummies." Top right, Mr. Bergen and his nurses listen while forthcoming scene is being outlined. Beneath them is a scene from a nursing film made by Mr. Bergen. And then we see Bergen and McCarthy as they are best known to the public.

Next to seeing the familiar sights of their own home towns they all wanted to get a look at the much publicised sights of Hollywood. The result was, "Charley McCarthy's Hollywood"; on which Bergen started as soon as he returned from that memorable trip. He had it ready for his next tour of army camps on Newfoundland, St. Pierre and Miquelon, and islands off the North Atlantic coast.

"Charley McCarthy's Hollywood," is the sort of picture one would expect that impish character, who expresses so much that an inhibited and restrained society would like to express, to make. It goes without saying that it is immensely popular with the service men. It contains shots of everything worth seeing around the film capitol, all the familiar landmarks, many of the personalities, particularly the feminine variety, the homes in which they live, and so on. But its popularity derives mainly from the abandoned, and purely McCarthy manner in which it was treated. Shots at the beach, f'rinstance, included careful panning up and down the most delectable figures. And despite Bergen's most fearful remonstrances, the irrepressible and irresponsible Charley insisted upon making revealing closeups of what the French so charmingly call the derrier.

Bergen is a great favorite with the service men. First of all he is a grand showman. His act is as good when it is done against the primitive setting of a camp in the Arctic as it is in a Hollywood studio. He needs no props nor music. His repertoire is extensive. This is a tremendous advantage, particularly in the more remote regions, that few of the other celebrities who tour the army camps share with him.

But his popularity with the men stems from more than that. He is kind and, despite Charley's disparaging remarks, generous, and possessed of a quality of sincerity that communicates itself to those around him. Despite a popularity that has produced such phenomena as at least one church changing the time of its evening service so that the congregation would not absent itself to hear Charley, and another that has installed a radio in its recreation room to accomplish the same purpose. Bergen remains modest and unassuming.

One night we found Edgar entertaining a soldier at one of the spots in Hollywood frequented largely by servicemen. He was just an observer, enjoying himself seeing others enjoy themselves. Never permitting his humor to become rarefied, he was "keeping in touch." Unobserved by most in the dimly lit interior, he was recognized by a youngster who, it transpired had recently received a medical discharge from the Seabees. Unhesitatingly, and without fear that he would be rebuffed or treated condescendingly, the ex-Seebee came right up to the table and thanked Bergen for the good time he had given the boys at Dutch Harbor when he was there. The Japs were still on nearby Kiska at the time, and from all accounts, Bergen's visit did a whale of a lot to build up that intangible something known as "morale." The boy regarded Bergen as an old friend, and Bergen was delighted by the unaffected expression of appreciation and friendship.

His most recent effort in film making is of a serious nature, and perhaps best expresses that side of his character about which so little is known. It consists of a series of seven pictures dealing with the nursing arts, and represents a valuable contribution to the educational material available for training student nurses. These films, prepared in cooperation with the Southern Section of the California League of Nursing Education, are exceptionally well detailed and are stamped with the mark of authority. Produced with the help of Telefilm in 16 mm color, it is not out of place to comment on the general excellence of the product and the unusually consistent exposure of the splendid prints turned out by that company. In both conception and execution the films mark a high level for the educational motion picture. To augment class instruction they are invaluable. Randolph Clardy, who shared with Bergen the responsibility of filming the series, is given camera credit. These films are available to all schools of nursing and may be obtained free of charge by writing to the Foundation.

The Bergen Foundation is a form of high idealism expressed as a practical

(Continued on Page 104)

Above left, the magazines can be changed without dismounting the camera
Above right (front quarter view) The winding crank and other camera controls are easily accessible Note the dovetail clamps which hold the front attachments when desired

Akeley-izing The Cine Special

By LEROY G. PHELPS

Director of Cinematography
Princeton Film Center

IT was more than twenty years ago that my old Akeley camera (its serial number is 89) first started to work for me For twelve of those years it recorded all the important athletic events at Yale University — football, crew, track, hockey and baseball Also it filmed five of the world's heavyweight championship fights—including the two Dempsey-Tunney matches Then began its expeditionary work; it accompanied Frank Buck on the "Wild Cargo" trip; next it shot "Dark Rapture," "Wheels Across Africa" and "Wheels Across India"

During this period the Akeley became practically a part of me—or vice versa While I am not blind to its limitations (and I could name them very quickly), yet, for me, no other existing camera is so quickly set up, so easily reloaded, so "fluid" in following a moving object

So, when shooting 16mm Kodachrome with my Cine Special, I have missed the advantages of my old Akeley, and it was only recently that I found a way to retain them

First I purchased from Akeley some spare parts: an outer camera shell, complete with main bearing and tilt control gear segment and a finder housing with pivot block and internal prisms Putting the camera shell in a lathe I cut away the projecting flange so that, when mounted in position on the tripod it became in effect just a vertical disc On its flat, vertical face I first attached a shelf to hold my Cine Special This shelf is made from an old Universal 200 ft. film magazine I never throw anything away—it always proves useful some day—and this old film magazine, made of aluminum, and amply rigid, was of just the right size for the purpose

By removing the door of the magazine and tapering off the vertical sides a bit, it no longer looks like a magazine, in fact it looks as if it were designed for this very job. The Cine camera proper is mounted on a piece of aluminum channel stock which raises it above the flat floor of the shelf so as to permit the easy exchange of magazines, without dismounting the camera

I left room between the camera and the vertical disc so that the floating-finder housing could be mounted against the side of the disc, on a level with the camera lens A half-inch clearance between the finder housing and the camera allows plenty of room for changing magazines on the camera

As an economy measure I did not buy a new optical system and eyepiece for this finder, the complete unit is easily removed from my 35mm camera by loosening one screw and is quickly transferred to the 16mm outfit

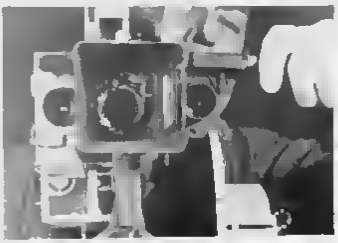
At first I was not sure just where to mount the camera shelf and the finder on the vertical disc On the Akeley the pivot of the floating finder is in the center of the cylinder-shaped camera, so the radius of the eyepiece is constant

I found, however, that if I mounted the finder and camera so that their optical axes were in the exact diameter of the disc, then the camera interfered with the tripod when tilting up, especially when using a 200 ft magazine I was anxious to retain the greatest possible range of vertical movement, so I boldly decided to mount the finder and camera *above* the diameter of the disc

By careful experiment I found the exact spot for mounting the shelf so that the camera could be aimed straight up to the zenith and also as nearly straight down as the tripod permits. Of course, the finder had to be mounted correspondingly high on the disc This means that when tilting up or down the horizontal floating eyepiece of the finder does move slightly rearward or forward However, this movement is so slow and so slight that in practice it has not caused the least discomfort

Another problem was the placement of the "tiller" I wanted as great a tilt range as possible, and at first I could find no way to mount the stick without interfering with the tripod. I finally solved this problem by extending the main bearing of the vertical disc so that the handle could be mounted to the left of the tilt control box

I used a pair of serrated discs here (they were once a part of an old Kliegl spotlight) so that the handle can be adjusted to any position whatsoever, a full 360-degree swing One of the serrated discs is fitted permanently to the main bearing, and the other disc, of course, carries a socket for the handle



Above the findar lens slides laterally for correction of parallax, and is controlled by a micrometer adjustment. Louvres in the side of the sunshade prevent the latter from blocking the finder image

Instead of using matched lenses in camera and finder which would result in a much smaller image on the ground glass than I was accustomed to with my standard-size camera, I decided to *double* the focal length of the corresponding finder lenses

For instance, when using the standard 25mm lens in the Cine Special, I insert a 50mm lens in the finder. This gives me a full-size image on my ground glass and yet it correctly defines the angle of view. For use with the 15mm wide angle lens, I was fortunate enough to locate a 30mm. finder lens. This is a rare item, but Goerz happened to have it. With the 50mm. lens, I use a 100mm. finder and so on. Now I have an efficient finder; I can really see what I am getting.

For the correction of parallax, I mounted the holder for my finder lenses on a plate which slides laterally, with a micrometer adjustment. The micrometer, by the way, is made from an old Pathe camera focusing screw. (Don't throw anything away).

The knob of this micrometer is calibrated for various distances from two feet to infinity and can be read from the operating position. I find that all my finder lenses have ample covering power to permit this lateral movement, so the problem of parallax is easily solved.

For a combination sunshade and filter holder I got a standard H C E aluminum unit and mounted it in an old matte box bracket and arm which originally came on a Universal camera, now discarded. (Don't *ever* throw anything away). With this arrangement I use a two-inch-square filter with all of my lenses. By loosening the set-screw I can instantaneously slide the whole sunshade and filter forward on the bracket, swing my lens turret around, and immediately slide the filter and sunshade back into position before another lens. No fiddling with multitudinous adaptors, rings and whatnot and no worry about the sunshade and filter falling off.

When using the wider angle lenses, I found that the sunshade obscured part of the finder image, so I cut away the offending side of the sunshade and substituted some louvres made of thin brass strips. These are set edgewise toward the finder lens and hence are invisible, yet they effectually prevent the sun from hitting the camera lens.

Above: a pair of serrated discs allow the stick to be clamped at any desired angle and being installed to the left of the camera mount, it cannot interfere with the tripod top

So now I'm happy. I have a good, reliable 16mm camera with quick-changing magazines, mounted on a gyro-controlled tripod with a jiffy-adjustment for leveling. I can change it to a baby tripod in a twinkling, or I can just as quickly set it on its three-pointed built-in high hat. When I'm using the latter I don't have to lie on my belly to look into my finder—I simply turn the eyepiece of the floating finder straight up and look down into it. There I have a standard-size image to look at, right side up and right side to. And, as I've discovered recently while shooting a Princeton Film Center production for the Grumman Aircraft people, I can follow the performance even of a Hellcat doing its hell-bent best, with ease and smoothness and without bending myself over backward to keep it in the finder as it climbs straight up.

What about the cost? Well by doing most of the work myself, I got out of it for a little less than three hundred dollars.

No, don't *ever* throw *anything* away. Why, I even have an optical printer which I made out of old junk—and honestly, it works *swell!*

NOTE: The article by Mr. Phelps is the type the Editor is always looking for. Everyone likes to hear or read about the accomplishments of others, especially when they are as interesting as Mr. Phelps achievement. We will welcome articles of this nature from our readers. The Editor.

Above (kneeling position): The built-in high hat finds its level on any surface. With eyepiece tilted up, the operator sees his image without lying down on the ground.

Above: (camera pointed up): The floating eyepiece remains horizontal even when the camera is pointed straight up.

Aces of the Camera

Vernon L. Walker, A.S.C.

By W. G. C BOSCO

ONE of the reasons the motion picture enjoys such wide popularity as a dramatic medium is its ability to present life-like scenes with startling realism. Nothing, it seems, is beyond the range of the camera's lens; no location or setting too remote or fantastic to reproduce on the screen. The hero plunges toward the earth in the cabin of a plane, or his boat is buffeted and tossed by an angry sea, he struggles to free himself from the deathgrip of a wild animal, or he hangs suspended in space from some Wagnerian precipice. No matter what the story calls for the cash customers get a full, and realistic view of the whole scene. And with the experts of the sound department contributing their part, nothing is left to the customer's imagination. It is this quality of omnipresence that gives the motion picture its power as a dramatic medium, the camera-magic that gives it its aura of mystery.

One of the best dispensers of camera-magic in the business is Vernon L. Walker, A.S.C., head of the special effects department at R.K.O. Studio. A man who became enthusiastically interested in motion pictures when those first faltering, flickering efforts of an infant industry captured his imagination as a boy in the first decade of the twentieth century. He decided then and there that he wanted to make movies. And although he's been at it ever since, he has lost none of his enthusiasm.

The manner in which Vern realized his ambition and got into the motion picture industry is unique. The story is so complete with all the rugged virtues of determination and unswerving purposefulness, so successfully climaxed, that it would not be out of place among the achievements of other pioneers who succeeded against seemingly unsurmountable odds.

Vern was living in Denver when he saw his first movie. He was about fifteen at the time, and working in the ticket office of the Denver and Rio Grande Railroad. Railroading seemed to have been every boy's ambition in those days, and it had been his until he saw that movie. "That," he told his father, "is the business I want to get into." But how? Nobody seemed to know just how a boy went about getting a job making movies. And it looked like a blighted life for the young enthusiast until Fate took a hand. A second-hand projector turned up in the window of the local pawnshop.

That projector might well have been the turning point in Vern's career. Dad, after much supplication, was prevailed upon to buy it. He did so in the firm belief that it would get the movie bug out of his young son's system. But it didn't work out that way.

In those days having a projector was one thing. Getting film to use in it was another. It might have stumped a less determined man, but a condition like that seemed only to have added fuel to Vern's burning resolution. Using the same tactics that had worn down his dad and won him the projector in the first place, he haunted the Denver film exchanges and talked them out of the old prints that had been torn and scratched beyond usefulness. Then, carting his treasures home, he set up his projector in the basement and gave shows to anyone who cared to come, and who had the admission price of one nickel. He didn't get very rich on this venture because the projector only threw a very small picture. But he did get a big enough kick out of it to decide to quit his job with the railroad and go to work at the old Hippodrome as apprentice projectionist. That was heaven. There he was, helping to run a projector and being able to see those marvelous early-day movies, not once or twice like the customers who paid to get in, but hundreds of times!

After several months of projection apprenticeship Vern thought he would like to get closer to the business of making the motion pictures he saw on the Hippodrome screen. So he took the day off and went over to Golden, Colorado, where a unit of the Bronco Billy company was making a Western. He arrived during all the excitement of shooting but stood aloof to better observe, with a critical eye, the various activities that comprised the motion picture unit of that time, wondering where he would best fit in. Actor? No. He didn't feel any burning desire to be an actor. The guy giving the orders? Well — But the cameraman! There was a job he would like! So, it was as a cameraman that he offered his services to the company that day.

But life is real and life is earnest. Vern was turned down—cold. He couldn't convince them that he really was a cameraman. Besides, they asked him, if you're a cameraman, where's your cam-

(Continued on Page 94)

Report from Russia

By ROMAN KARMEN

Winner of Stalin Cinematographer Prize

WHEN we Russian cameramen used to meet in the pre-war days our talk sounded somewhat as follows:

"Hello, Misha, where did you blow in from? The far East covering seal hunts on the Aleutian Islands?"

"No, I've been following archeological excavations in Central Asia."

"Where do you go from here?"

"Oh, I'm going to get married and settle down in Moscow."

Then came the war, and we scarcely ever met at the studios. Boys grew suddenly older. Their hair grew gray. There were black lines beneath their starry eyes. They were seeing too much blood and suffering. Some dropped out of sight completely. Information about them was gathered haphazardly.

A cameraman would return from the front and you'd ask: "Where were you?"

"At the front," would be the reply. "I brought back three thousand feet of action shots."

"Wasn't Victor with you? How is he getting along?"

"He was until last Thursday. A shell struck too near while he was loading my camera near Poltava in the front lines."

"How about Ellipsis?"

"A plane didn't return, and he was in it."

Day in, day out, such was the typical conversation. We were at war. So were our cameramen. Well known faces were disappearing daily from our cinematographic ranks. From time to time we tried to get leading cameramen together for conferences. Just a few days ago we had first of these get-togethers in six months. Cinema group chiefs flew back to Moscow from all fronts, and we summed up our results and discussed our experiences with the Red Army in the summer offensive. The fact that the group chiefs were able to come from all fronts in itself was a good test of our operative potential. Troyanovsky even came in from the Crimea, and the conference was a big success. Solovtsev came from Leningrad. Others came from the forests of Karelia, from Novgorod sector, from ships of the Black Sea fleet, and others from the far-off Polar Tundra.

What a story the combined subjects of our discussions would make! These cameramen had been on all fronts and various phases of the war. Some had been filming at the front when the Red Army was forced to withdraw eastward. Some had seen and photographed those unforgettable events in November, 1941, when the enemy had reached the approaches of Moscow. Others had filmed the last hours of the battles of Sevastopol and Odessa. Others in our group had recorded on film those terrible days before Stalingrad, as well as the happier days when the enemy's best divisions had been annihilated or captured, and the enemy dead were buried in mass graves. No single phase of the struggle has been missed by the cameramen.

Stalin's prophecy that our day would come has finally come true. The day of the Soviet people and the Soviet cameramen among them has come, indeed. During the most critical phase of the struggle the Red army was massing great forces of men and materials under the guidance of its supreme Commander-In-Chief, and struck its first devasting blows near Stalingrad and then proceeded to liberate the country.

Reviewing the progress we had made during the war, we cameramen desired to know whether we had been suitably prepared for this most important phase of the war which has unquestionably brought the day of victory nearer. Our experience revealed that we were properly prepared. Documentary cinematography in the Soviet Union was fully up to the mark in creative and technical development by the time the great offensive began. This was easily enough determined at the conference.

The result of our work was determined not so much at the conference, of course, as by its effect upon the Soviet spectators. The Red army's offensive has been preserved for audiences in such films as "Battle of Orel" and "Battle of Soviet Ukraine." Both documents are of great value. The same is true of the thousands of meters of film which were not included in our current events productions, but were filed away in vaults for safe-keeping as priceless records of great historical events.

At our conference we exchanged opinions regarding correct methods to work in the light of recent experiences at the front. Some groups among us were mercilessly criticized for their shortcomings. Others received due praise. There were many among us who had been awarded orders and medals by the Government. Methods for further work were outlined.

Splendid courage was displayed by Combat Cameraman Yefim Lozovsesy while filming a battlefield from the inside of a tank. His tank suffered two direct hits and the crew was killed and he was severely wounded. Scrambling from the burning tank, he continued filming until he lost consciousness. Another who distinguished himself was Boris Shei, who in the capacity of gunner and cameraman accompanied a force of Soviet attack planes in a raid over an enemy airdrome. Working first his machine gun, then his camera, he obtained valuable film material and at the same time downed an intercepting enemy FW 190.

Our absolute preparedness for all exigencies during this period of the war was the result of experience we had gained during previous actions since the beginning of hostilities. Our cameramen knew just what was needed when they accompanied the Red army over ground relinquished during the bitter days of retreat. Now when German divisions were falling back from the blows of the Red army our cameramen had become seasoned soldiers. Armed with "Eyemos" our boys along with the vanguard of our forces entered the cities of Kiev, Smolensk, Poltava, Dniepropetrovsk and Gomel. Waiting for them now are the Crimea, Odessa and the Baltic States. Once we departed from these places in sorrow, but we shall return as victors.

Who can doubt but that Vladislav Mikosha will do some wonderful work when he returns to Sevastopol, which he left with the very last battalions? The same applies to Boris when the army regains the forest region in which he spent two months with a detachment of troops. What such men can do has already been shown in the films of the summer offensive obtained in thick of the fighting in the front lines.

While writing this to my American Cinematographer friends I am reminded of my recent visit to the Moscow airdrome on a misty Autumn morning. A huge flying ship was ready to take off. Our guest, Mr. Cordell Hull was taking leave of Molotov before returning to the United States. In the fitful light we could merely see the band playing the anthems of the United States and the Soviet Union. A gust of wind ruffled the gray hair of him who Churchill called "Mountain Eagle." Mr. Hull said a few words into a microphone about the results of the historic conference. We kept our cameras going as long as the plane was in sight. Aboard the plane there was a box of film upon which our cameramen had recorded the progress of the conference of the three Ministers at Moscow, a conference that is a golden page in the history of the friendship between our great nations.

Films are the mirrors of history. Cameramen are the spectators of historic events. Hundreds of my collegues throughout the world are recording events of our times. They are men who witness too much suffering and blood, but each knows he is filming great battles and episodes, knows not the fear of death. We are working for mankind and for posterity. It is for those who follow that our best and bravest men are laying down their lives on the banks of

(Continued on Page 102)

NOTE The intensely human article by Roman Karmen was prepared especially for the American Cinematographer and radioed from Moscow. Mr. Karmen, one of Russia's greatest cameramen, is acting as special correspondent for the Cinematographer in the Soviet Union. From time to time we shall print special articles prepared by him.
—The Editor

Planning for 16-mm Production

By RUSSELL C. HOLSLAG *

THE term "production" is all-inclusive, and it is not the purpose of this paper to deal with the many aspects of dramatic production or with the planning of films intended for entertainment purposes. The type of production to be discussed is the one in which 16mm. is now especially called upon to perform—that of rapidly turning out films which might be called "expository," films which explain or instruct.

Since there is so much of this kind of film training to be done, we find that the task of planning such films must often be assumed by those who may be thoroughly acquainted with the details of the subject matter of the films to be made, but who may not be so well acquainted with the methods of planning and presentation that will make an effective motion picture. As a matter of fact, the inevitable growth of the expository film will make it necessary for the teacher or expert in any given subject to produce the film, rather than the motion picture expert. The educator will therefore find it necessary to learn enough about the needs of the film medium to present this instruction effectively, just as he must be able to describe his subject logically and clearly in writing if he wishes to write a text-book. And as the writer of a practical text-book need not, and usually does not, indulge in colorful word painting and imaginative prose to make his message attractive, the practical producer of teaching films need not feel himself called upon to adopt the dramatic devices that belong to the entertainment field.

Confronted by a motion picture project, the specialist with a thorough knowledge of his subject may be at a loss as to how to organize this knowledge along lines which will (1) enable the actual shooting to be carried out with a minimum of lost motion and waste of time, (2) arrange the material so that the cutting and editing do not present any unusual problems, and (3) include only the material necessary to produce a direct, straightforward result.

Since thoroughly adequate results, both in picture and sound, may now be obtained with existing 16mm apparatus by any intelligent person who will take the trouble to familiarize himself with the necessary instructions, it follows that the most important factor involved is really the advance planning of an adequate presentation of the subject matter. Through a great deal of direct experience with this type of user of 16mm apparatus, and through a general review of what seems most in need of emphasis, there has been evolved what is believed to be a direct, simple method of production planning. If this method is carefully followed, experience has shown that results in the production of expository films are quite adequate, even when they are made by those who have not had any particular experience with the motion picture as a medium of exposition.

The planning schedule, as devised, assumes the use of sound commentary to accompany the visual presentation of the subject. Because of the fact that there are very few occasions where spot-recorded sound is necessary to add to the actual teaching value of the film, the plan makes provision generally for the later addition of a proper commentary after the film has been edited and breaks smoothed out. Spot-recorded sound can in many cases add to the dramatic value of the film, but this is generally apart from its straight training value.

Many who are called upon to plan their own specialized training motion pictures for the first time have only the model of theatrical motion pictures as precedents which tend to confuse the issue. In view of the pressing need for good training motion pictures at the present crucial time, we may safely assume that our pictures will be given attention by any audience which hopes to benefit therefrom, without unnecessary dramatic devices. This applies to fancy transitions, trick wipes, mood music, elaborate introductions and conclusions, entertaining animation sequences and other methods used in theatrical or persuasion films to compel attention. In view of the seriousness of the situation in which training films are now called upon to serve, it is felt that they need not entertain any more than an instruction book entertains.

Another tendency which should be avoided in advance is over-elaboration and its corollary, the attempt to include too much material in each film unit of the subject under consideration. This is generally the result of the specialist's great familiarity with his subject, that is, he is apt to assume that many points of the explanation are obvious and so need not be emphasized. This is a particularly dangerous conception in the case of a motion picture presentation, because a given action should always be followed through to its conclusion to avoid a jumpy effect. If this principle is not observed, the action when photographed may leave many fundamental points unexplained. The result will be an attempt to supply the missing explanation by means of the commentation alone—an attempt that will usually leave the announcer breathless and the audience bewildered. The only real remedy is replanning and retaking.

Another pitfall to be avoided is often brought about by the planner's literary ability. Many authorities can write clear, lucid explanations of their subjects and are apt to feel that they can create a successful training film by writing a good literary commentary, letting the picture simply trail along at its heels. This, of course, does not take into account the effective combination of action and explanation of which the motion picture is capable. In addition, there is always the danger of writing too much with the result that the action has to take place too quickly to keep up with the rapid explanation. On the other hand, a companion danger occurs when it is planned to photograph the operation in advance in as many aspects as possible; then to edit them and to try to fit them into a smooth-running commentary. This nearly always results in action which is either too short or too long for the proper flow of explanation.

In practice the best results are gained when the visual impression is created coincidentally with the explanation or comment, the latter not involved or verbose but simply describing the action that is proceeding at the moment. Keeping this principle in mind is a real aid in planning both the visible and audible components of a training film together, thus making it fulfill a direct purpose. It is also a great help in overcoming the temptation to be too literary in writing the commentation.

One of the very practical methods for sketching out the plan of an instructional film is to make a verbatim transcript of the explanation, and resulting questions and answers, involved when a beginner is actually introduced to a new process by an instructor. This would apply with equal force to almost any subject, from the handling of a hammer and chisel to the assembly of a complicated mechanism. The information given, the questions asked, and the interval of time between questions provide a valuable index to the amount of material that should be covered in a given time on the screen.

As to the mechanical transfer of the idea material to its most convenient form for the preparation of picture and sound-track, there has been developed a simple form of "shooting script" which at least has proved successful in a number of cases where training film had to be turned out speedily. It serves as a combined scenario or shooting script and editing reference. By a simple understanding of the points already noted, together with a thorough knowledge of the subject to be recorded, a practical and direct shooting plan can be evolved by filling in each of the

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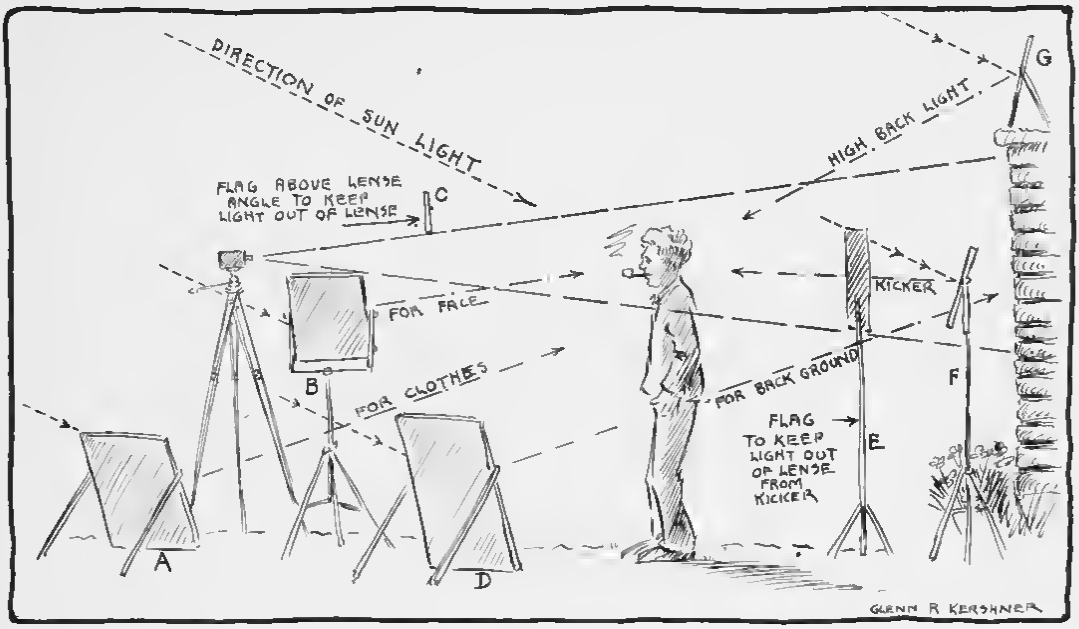
* J. A. Maurer, Inc., New York
This article reprinted from the S.M.P.E. Journal.



Proper Placing of Reflectors

By GLENN R. KERSHNER, A.S.C.

LIKE most professional cameramen, for a long time I considered the 16 mm. camera but an instrument for amateurs, similar to a small kodak to snatch up, make a few pictures around home or on a trip to have something to show your friends where you had been. After using the large standard cameras this little one which I could stick in a pocket seemed like a plaything, and I was never very serious with the fine detail as we are when using the 35 mm camera at the studio.

The 16 mm. camera of today is no more a toy, it is here to stay among the professionals and we are using them more and more each day to make pictures for the full size screen. Studios have recognized their value in location trips, tests of actors and of wardrobes. Interesting subjects are now blown up (enlarged) to the 35 mm. film and are seen daily on the screens of our largest theatres. I may go further and say that the Army and Navy are using them almost exclusively. Why? Because their efficiency and their compact size and light weight.

To illustrtate why this small camera will mean a great deal in cost, weight and bulk to we cameramen who travel . . . for instance, in 1927 while picturing the Pathe-Bray Expedition through the Colorado River it took one complete compartment, one-half of the little sixteen foot boat, to store my 35 mm. Bell and Howell and extra negative when we were so crowded for space to keep food and warm clothing, saying nothing of the one-hundred and seventy-five pounds of dead weight of the camera to carry while climbing steep cliffs or crawling under big boulders.

This trip was just black and white, no motor and cranked by hand but the one to the Arctic in 1931 with the Donald B. Macmillan Expedition for Multicolor was by-pack color requiring two negatives with double magazines and large heavy batteries to run the camera moto My Mitchell camera weighed around one-hundred and seventy-five pounds, the batteries another seventy-five and all this when in cases required twenty cubic feet of space.

One- thousand feet of 35 mm. negative weighs approximately six and a half pounds requiring a tin container ten and a half inches in diameter and one and a half inches deep. Multiply this by eighty and we have a total weight of some five hundred and twenty pounds. Add the camera equipment and we have some seven hundred and ninety-five pounds to stow away in the hold of the already heavily loaded schooner, lug over the snow and ice, or to cram into the small space of the airplane.

Sixteen mm. films is but one half the thickness of thirty-five mm. and as the size of the picture is much smaller it is sixty per cent less in length. (400 feet of 16 mm. is equivalent to 1000 feet of 35 mm. and weighs only one and a half pounds).

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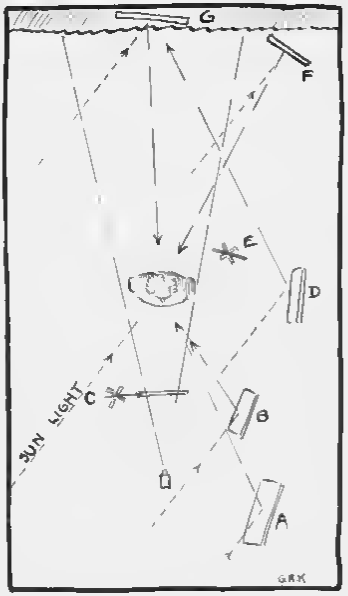
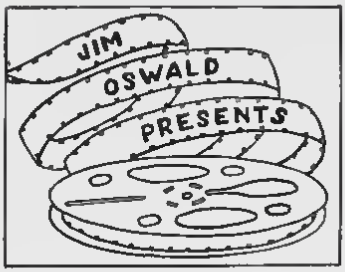
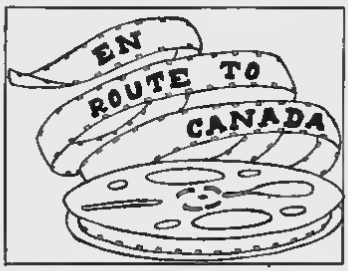
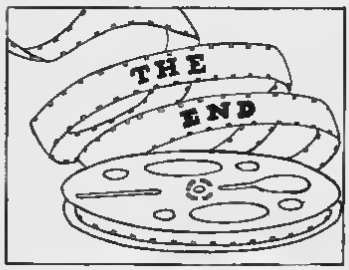


Top is self explanatory illustration showing how to use reflectors. Beneath is top view of same setup.







Titles Tell The Story

By JAMES R. OSWALD

THE average movie maker, whose films are lacking the magical charm of a sound track, is tremendously handicapped in his cinematographic activities. No matter how technically perfect his movies may be from a photographic standpoint, there is bound to be a tendency among friends and acquaintances who see them, to sub consciously make comparison to the talkies they see at the local theater, whether he likes it or not . . . it can't be helped!

True enough, many serious home movie enthusiasts add their own musical score to their most prized pictures, by means of records "piped" through an amplifying system to a speaker located behind the screen. Others employ an even more elaborate dual-turntable outfit, which provides uninterrupted music by fading from one record to another, without the slightest break whatsoever. Such methods have met with remarkable success, and if properly handled, reach near perfection, especially so far as scenic and vacation films are concerned. So far as lip synchronization, however, records amount to almost nil, in my opinion. Any off-timing between picture and sound can make your efforts the laughing stock of the show. What then is the answer?

In a sound film, dialogue naturally plays a very important part and aids in carrying on the continuity of the picture greatly. With silent films another means must be resorted to to put across a point . . . gestures. Most of us are already aware of that. But take a look at the average home movie! Such over-acting is carried on to the point of being ridiculous! Again I ask, what then is the answer?

The answer is titles. Nobody likes to read titles, but they are a necessary part of every good silent film, if continuity is to be maintained. The secret lies in their proper use, which makes them as interesting as possible, avoiding boredom. Above all, they should be used sparingly . . . only where absolutely necessary, to clarify a point which is not brought out in the picture, perhaps time, location, or place, or as a "quotation" title, which quotes the words of the actors taking part in the picture. Titles always PRECEDE the scenes they caption. The copy should be as short and to the point as possible.

One way of adding interest to titles is to make them attractive in themselves. By this I do not mean using elaborate or fancy borders to set off the print. Such practices, though once popular are now frowned upon in higher circles, as they only serve to detract from the copy. On the other hand, a picture or photographic background to the title greatly enhances its value and at the same time does away with the coldness of plain type on a plain background.

Undoubtedly one of the simplest and most effective ways of making titles, and one which requires no editing, splicing, or special equipment, is titling "on location." When this method is used, titles are made at the time the scene is shot, by taking advantage of every opportunity which presents itself to help clarify matters . . . and believe me, such opportunities are plentiful, if only watched for! Road-signs, theater marquees, newspaper headlines, calendar pages, clock hands, etc., are all "naturals" for the alert title maker, who likes to make his titles as he goes along. For those who prefer to do their titling separately, an endless variety of clever effects are possible, limited only by the ingenuity of the individual and the amount of equipment available. A poor title is worse than none, so no effort should be spared to make the most of the situation.

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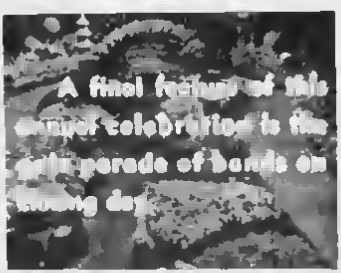
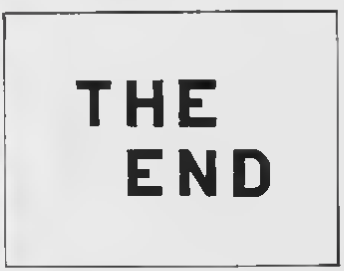
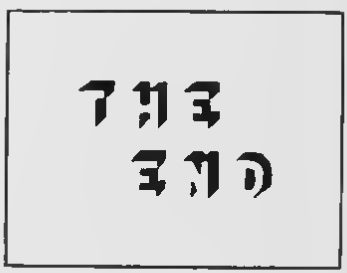
Titles should be matched in any film as the three top titles on this page. A sign is perfect for a title background, as is shown at left. Picture backgrounds bottom left are also pleasing. Poorly lettered titles are worse than none. Make them neat and easily read to improve your home movies. The one below is neat and legible. The one lower right is neat but confusing to the eye.







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Let's Be Efficient

By JAMES PRINDLE

THIS is an open letter to say that in time of war there is a need for more simple, obstinate people who will ask some simple questions

The war brought an enormous demand for the production of audio-visual aides for uncounted tasks of mass training, mass persuasion and indoctrination and for some very important, very small specialized aides for the busy leaders who must work efficiently at the top of World War II

There is no question of the effectiveness of the film medium. The history of the present war will have a section devoted to the service of the film industry. But there is one aspect of wartime film-making that hasn't yet been brought to the fullest possible efficiency.

Think back to the confusion of the early days of the war A bewildering mixture of military men, reservists, documentary producers, commercial producers, educators, amateurs and other producers of trailers, shorts and even great entertainment films all got together in a thousand different places, for a thousand different reasons to try each to do what he could to supply the demand for films that would help in the many wartime uses for pictures with a purpose.

The very nature of war, whether you begin to manufacture a new airplane engine or produce a training film on how to maintain the engine, a tactical film on its combat use, or a strategical film on a fast evaluation of its actual experience in battle all of these things mean difficulties, headaches, confusion and a certain amount of waste

The demand for war films was fantastic and everybody from all sides of the industry pitched in This writer found himself in a small corner of the activity making an assortment of different films that covered such a variety of subjects as the flight characteristics of an F4U all the way to how to put a needle into a vein to take or give blood, how to shoot a Springfield the secret of Marine pride and the problem of mobility for the Army

The big, general jobs of mass training, indoctrination and related mass problems are being effectively organized, produced and used But the smaller and in some cases, more important jobs of serving the top few with illustrations and evaluations of the materials and experiences of combat zones are still experimental

There are many reasons for this There aren't enough people who know about fire control, for instance, or who have ever heard of the real problems of logistics or what the JCS needs on films

Go back in your mind to normal film production.

Think of any important stage in Hollywood.

You don't have to sit there very long, as an outsider, before you discover several interesting things. You realize that there is real purpose behind all the showmanship You can see that there are stars on both sides of the camera And, the longer you sit there, the more you will feel a real admiration for the assistants, the grips, the prop man, even the sleepy looking guy with a gobo . . . because whatever the great minds dream up—for a purpose—is eventually put on the screen by the technicians, the little men and women

The process may be long and expensive but somehow it gets up there on the screen. And the result can be measured at the box office In a more peaceful world, entertainment films come rolling out and enough of them bring a reassuring chink at the box office

But war has nothing to do with the box office

The purpose for films in wartime are infinitely varied but there is a real purpose for each foot of film

It is perfectly logical that a man who knows how to produce a successful dramatic story, a great musical, or any other entertainment film, does not necessarily know anything about interpreting global war's details for the men who must get the answers and get them quickly.

The technicians, the equipment, the fundamentals are all there but the purpose is different

Look over in the commercial field The men who could make a film to train salesmen in selling a product do have some understanding of training and salesmanship Their experience accelerated the military training program but few of them were qualified for the more refined and difficult jobs of being the eyes and ears and the suggestive part of the brains of the few who must run the war

Look anywhere from Hollywood to New York or Detroit to New Orleans and you will find only a handful of men who could make more than a film report of what they saw or what happened

Film reports, like mass training or a dozen other related projects, have an immediate value but they don't solve the more immediate problems facing the men at the top

There is a whole world for a stage and, scattered around in a dozen theaters of war are a great many able crews, a great many others are available. But all too many pictures are being made which do little more than report on the superficial aspects of modern war

There seems to be a great need for someone a simple, obstinate someone who will keep asking *why* "What are we going to do with it? What's it for?"

Questions like this can't be answered in the field. No ordinary producer knows what to do with a crew in Iceland, Sicily or any place else

Take a common problem a battle

A battle on land or at sea or in the air is a terrific, complicated spectacle if you can put it—or even a few parts of it—down on film.

It contains tactical problems, new weapons problems, dozens of complicated problems of time and place and all this is interwoven with the larger problems of strategy

The important phases of each battle could be photographed or reproduced through a combination of photography, animation of several kinds, and with frozen frames and the proper evaluation from the sound track, these important phases might be condensed to ten minutes running time.

Think what it would mean to the men who must make the big decisions if they could get this kind of a film—regardless of its quality or entertainment content—fairly quickly after something happens

Generals know what a mortar firing or an infantry attack looks and sounds like Admirals know what a torpedo plane looks and sounds like diving on a battleship But there are a lot of details about any action that they don't know until all the voluminous reports have been carefully read, studied and interpreted.

This is only one problem but it is a big problem An illustration of how difficult it is to know all the answers can be seen in the battle of Jutland Even today, there are many inter-related and important problems of that very significant battle that are not well understood. And Jutland happened over a generation ago

Wartime film-makers are trying to bring the world home on film, to bring the battle back quickly and to do some of the many things that film can do But after seeing hundreds of their films and helping to produce about fifty of them, myself, this writer feels a great lack of simplicity and purpose

Someone should stand between the men at the top and the able units in the field and constantly try to determine what is needed today and what will be needed tomorrow

The battle's real interpretation on film is only one of a great many needs for the industry's ability to put anything on film Some of the others are confidential or secret Some aren't even known at this moment But just as the technicians and crews of Hollywood the commercial producers or the documentary men and women and the educators all of them can supply

(Continued on Page 102)

"I wouldn't dare shoot a picture without arcs to give that final brilliancy and effect."

Karl Freund
A. S. C.

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Fundamentals of the Film

By F. C. MOULTRIE

I HAVE called this article "Fundamentals of the Film" for the sake of brevity. Actually it is a discussion of the basic facts underlying not only cinematics, but all entertainment, whether it be presented in the medium named or in that of a painting, a still photograph, a stage-play or a book.

In motion-pictures,—which are, of course, our particular medium of expression,—the proper manipulation of the arts of editing and cutting, rendering of "mood," etc. is required, in order that the planned results may be realized. This aspect will be referred to later if our line of argument should warrant it, although it does not directly affect the fundamental ideas which compose our main topic.

The universal interest displayed by children in their experiences and surroundings is because all these things are new to them, but when these emotions and experiences have been encountered many times they become commonplace and no more entertainment can be derived from them. It might be well now to pause and consider a simple example. First let us imagine a very ordinary set-up such as a book lying on a table. This would not command more than a momentary glance at best. Let us, however, take a photograph of it, reasonably closely, and we may call forth admiring, sustained study of the resultant picture. Why? Simply because the photograph, being but a pictorial representation, is artificial, and as such is not entirely commonplace. If the photograph is made from an unusual angle, with special lighting effects and is magnified to abnormal proportions, then we have added features which give the photograph still more "entertainment value."

In consideration of these facts, it would seem apparent that "entertainment" is obtained from something which is novel enough to excite our emotions, senses, admiration, vanity, curiosity, etc. to a degree not ordinarily experienced.

In order to fulfill these conditions in the making of a film which will be of interest to others, we must follow some definite theme or story and infuse it with varying "doses" of artificiality, adventure, fantasy, romance, idealism, mysticism, horror, fear, passion, suspense, grandeur and any other such elements as may appear to be necessary.

Our own ingenuity must determine the line to be followed in any particular type of story and just what we will pack into it to cause the audience to "sit up and take notice."

Many persons will remember the early days of the motion-picture. How wonderful it was to see an enlarged photograph spring into action! It was such an overwhelming novelty that nobody cared *what* was flashed on to the screen, so long as it was a "living picture." One felt as though it would be impossible to grow tired of watching such a miracle. But we became accustomed even to this, and so a motion-picture was in due course accepted as just another one of the "ordinary" things of life.

This brings us to an important milestone in our analysis. The man who secures a movie-camera and experiences the thrill of filming a moving object and of seeing it apparently reproduced exactly as he filmed it, is, in a sense, back at the beginning of "living pictures" again,—the main thrill this time however, being secured from the fact that he photographed the scenes, automobiles passing along a street, smoke pouring from a chimney,—anything! But he may be disappointed when the friends to whom he exhibits his films, fail to react with the same enthusiasm. The reason for this is that it was not they who photographed the scenes. To them it is like witnessing a very early movie, when anything suited so long as the picture was animated, but there is no longer any thrill in merely seeing a movie "move." They are attentive only to the extent to which they secure entertainment from the film as understood by modern standards. This means we must have *continuity* and incorporate one or more of those artifices mentioned earlier.

Now it is recognized that perhaps the majority of substandard movie-camera owners have invested in these instruments with the intention of making nothing more than "personal records." If such remains strictly the case, there would be less need for this survey of principles, but are we not aware of the fact that we invariably trot out our personal movies and show them to friends?

Furthermore, as we grow more adept at photography, we will one day be taking our camera on a fishing-trip or,—in peacetime—possibly on a vacation trip abroad. Upon our return with motion pictures secured on our journey, it will not merely be to our immediate circle of friends that we display them, but it may be before the membership of a club or a church or to business associates. So, it is essential that we use great care in making films which we will be showing to a wider audience.

In this connection, we do well to remember too, that the wording of the running commentary,—whether spoken or written, as well as the musical and sound effect, (if any) have an extremely marked bearing on the ultimate impression and must be considered as an actual *part of* the film—not as detached, rough subsidiaries to a series of jumbled movie shots.

The continuity, tempo, expression, volume and flow of words and music, inflexions of voice, etc., should be given as careful attention as the complementary parts of the film itself. This is not so difficult as might at first appear, particularly if we can absorb the various basic principles about which this article is mainly concerned. When a composer writes a piece of music, he places notations throughout the score,—"fortissimo, crescendo, allegretto," and so on, which, if followed, enable reproduction of the intended expression. A film should be thought of in a similar fashion, in cutting it for tempo, photographing for "mood" etc. The difference between a mere animated photograph of a moving object when appearing as part of an "unplanned" film and as part of one of the properly planned variety, can be appreciated from the following examples: Imagine an automobile passing along a street. It is just a moving object. If, however, it is part of a film story, the unfolding of which has revealed to us that the auto is carrying a kidnapped heiress or perhaps a gang of hold-up men, then there is a purpose in filming it and it will become one of the factors which will hold the attention of our audience. If at the same time there are hard whines of police sirens, firing of shots, etc., the car still remains a moving object,—but with what a difference! In fact the entire scene, street included, seems to change. We are tense. Our emotions of adventure, expectancy and suspense are stirred. Thus we derive entertainment! We can also see, from the foregoing example, how that music and sound effects and dialog, can become part of the film itself, as was stated.

The question is, what are our films going to be? A collection of mixed animated photographs or a planned set, forming an integral unit? It is true that we do not all have the time to write scripts or make elaborate preparations, but even the making of a few notes will help a great deal. Should this absorb too much of our time, a mental plan is better than nothing.

Admittedly, we sometimes discover that conditions met on the site may prevent our securing the shots we had planned. Nevertheless, if we have some pre-knowledge of the *types* of shots we require we will not find ourselves at a loss. Suppose we say to ourselves, prior to an intended trip to Mexico, that we will secure shots of the following TYPES: ancient and modern architecture, native arts and industries, native customs, beliefs and superstitions, city life and country life, historical and other landmarks.

Thus, while we may not be able to obtain a picture of an Indian making pottery, we may be able to secure shots of an Indian weaving a blanket. We may

(Continued on Page 92)

Removable Head "PROFESSIONAL JUNIOR"* TRIPOD

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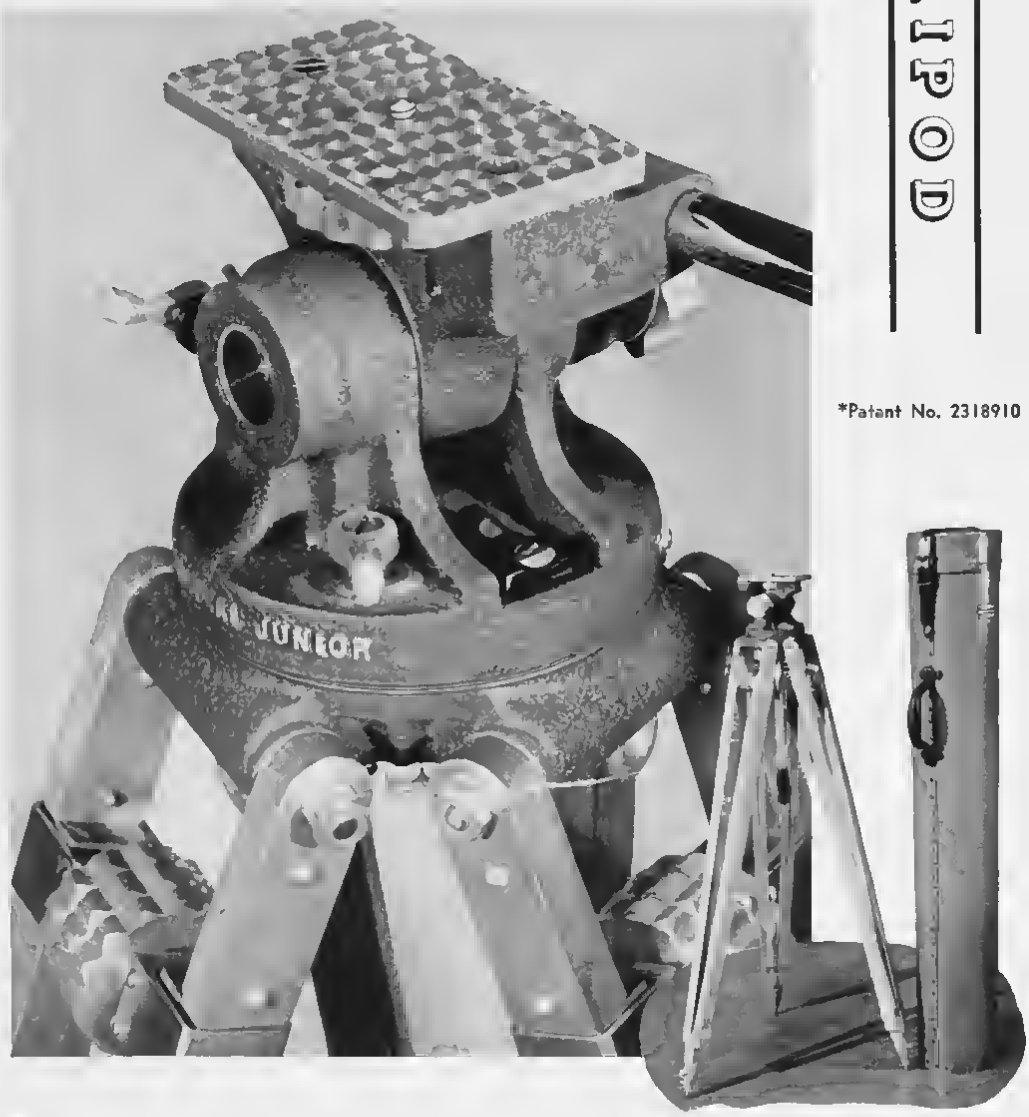

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*The friction type head gives super-smooth 360° pan and 80° tilt action. It is removable, can be easily mounted on our "Hi-Hat" low-base adaptor. The large pin and trunnion assures long, dependable service. A "T" level is attached. The top-plate can be set for 16 mm E.K. Cine Special, with or without motor; 35 mm DeVry and B & H Eyemo (with motor), and with or without alignment gauge.

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Fundamentals of The Film

(Continued from Page 90)

not find it possible to be present during the performance of a native dance, but we may be around when a native wedding is in progress. We will in this manner still be provided with the TYPES of shots we had planned.

Never forget that people are interested in *people* first, in *animal life* second, in machinery, land and seascapes third.

It is a mistake, however, to populate a scene continually with members of one's own party. If this must be done, do it unobstrusively and then only once or twice. Far better it is to concentrate on the native population, especially in the form of plenty of close-ups of interesting or odd characters, or of those engaged in some occupation which is being made a particular subject of.

While it is advisable to include a few scenes of a nature familiar in the place from whence you came, (in order to create a "link" for the sake of your home audience), do not dwell on these, but bear down on the things that are *different*. In a city, you may find the same types of business buildings with which you are familiar—but what peculiar taxi-cabs and street-cars! What unique methods of collecting fares! One may pass along a row of familiar looking stores, then suddenly come upon one which is the home of a "public letter writer." If so, concentrate upon it and show how this strange calling "operates." Trains may be the same there as elsewhere,—generally speaking,—but a brief trip into the outlying country may bring us to a narrow gauge railway upon which we may take an interesting journey through jungle land, and it may have an odd-looking little engine. The kind of stations we arrive at, the type of ticket office, the people inhabiting such a remote spot, the freight carried,—all may provide possibilities for film material.

The importance of EDITING, to say nothing of other factors, can scarcely be over emphasized, because it involves a principle called "association of ideas." The following is an example which it is hoped will make this clear. Let us imagine we have TWO shots. One consists of a person walking across a room and off scene. The other depicts the same person ascending a staircase and off scene. If, in editing, the shot of "crossing the room *precedes* that of the staircase, then we subconsciously jump to the conclusion, in watching it projected, that the person is crossing a lower room to approach the staircase, which is later reached and is being ascended to gain an upper floor. If, however, the staircase shot comes first, we naturally conclude that the room is located on the upper floor, since the staircase was being ascended to reach it. If, again, the person appearing in the shot of the staircase is not the same as the one shown in crossing the room and we cut the staircase shot in two, inserting the former between the two halves of the latter, we would conclude that both events were occurring at the same time. If we "Lap dissolve" one shot into the other,—our premise is usually that the events are taking place at the same time but at different locations.

This may not always be the case, as it may be used to denote a difference in time also—the thread of the story itself determining what assumption we arrive at.

A "fade" from one scene to another almost invariably indicates a difference in time. "Montage," (both the composite variety and the quick-following type), presents another aspect of the principle of associated ideas. I.e.—Our impressions of the newspaper world may be "busy desk-men, headlines, giant presses pounding out late editions, street corner news-stands and busy pedestrians hurriedly snatching a paper as they swirl by, telephones and teletypes busy with late news,"—Such shots as these, presented all together in one composite scene, or in brief staccato flashes following each other in rapid succession, are known as "Montage." It is a useful device and should be remembered as one of our stocks in trade.

Our ability to make use of the foregoing or any other cinematic practices depends, of course not only upon the degree of ability we have attained but also upon the equipment we have available.

The space and scope of this article does not permit our dealing with this angle, but might form the subject for some future consideration. In drawing to a close, we would like to make a simple suggestion regarding titles. We believe that, if adopted, this would offer a minor contribution towards making "personal" movies a little more "impersonal" from the point of view of an audience composed of friends and relatives. If we have been in the habit of wording titles in the first person, let us discontinue this—in favor of substituting an "objective" or third-person form instead, viz. Such title wording as—

"Our 1937 trip to Rio."

"We play deck quoits."

"Our first glimpse of Rio."

may well be eliminated in favor of—

"The Dixons' 1937 vacation."

"The Dixons' try a hand at deck quoits."

"First sight of Rio."

Such wording in no way detracts from the value of a film as a personal record, but it does assist others to "take it" without that shut out, excluded feeling which a "first-person" treatment gives an audience. While it is difficult to obtain sufficient quantities of raw material with which to construct new films throughout, re-titling old reels and re-editing and cutting, could employ many profitable hours, and it is not hard to visualize the possibility of providing ourselves with films so completely transformed that we would not only take pleasure and satisfaction in showing them, but may also have secured valuable practical experience which we can advantageously apply to our future film making.

"Romance of a River"

Associated Screen Studios have completed a new motion picture in color for the Hydro Electric Power Commission of Ontario, entitled "Romance of a River." It chronicles a romantic chapter in the history of Canadian engineering achievement—the diversion of northern waters a thousand miles and more into the St. Lawrence river system.

It is the story of how engineers damned the waters of the Ogoki River watershed, turned them back from their northward course into James Bay and the Arctic Ocean, forced them to flow southward through Lakes Nipigon and Superior into the St. Lawrence. In successfully completing this achievement they increased Ontario's potential power resources by 360,000 horsepower, and paved the way for a $50,000,000 power development program in the years to come.

This is the story of Hydro's harnessing of the northern wilderness to serve Ontario homes, factories and farms. It gives some insight into the vastness of the project, showing engineering and construction work carried on in colorful northern summer and bleak wilderness winter.

Premier George Drew of Ontario is shown throwing the switch to start the 65,000 h.p. generator at the new Decew Falls power plant, and explaining the significance of this new accomplishment of Hydro. Dr. T. H. Hogg, Hydro chairman appears in the picture as well, to outline how this diversion of a river will benefit Ontario citizens and industries.

New Filmo Sound Releases

BETWEEN US GIRLS (Universal)
8 reels, $17.50

A modern comedy concerning a young stage star who masquerades as a 12-year-old tom-boy to help her beautiful mother win the handsome man she loves. Quite incidentally she takes over her new step-father's handsome son. (Diana Barrymore, Robert Cummings, Kay Francis, John Boles, Andy Devine) Available from March 4, 1944, for approved non-theatrical audiences.

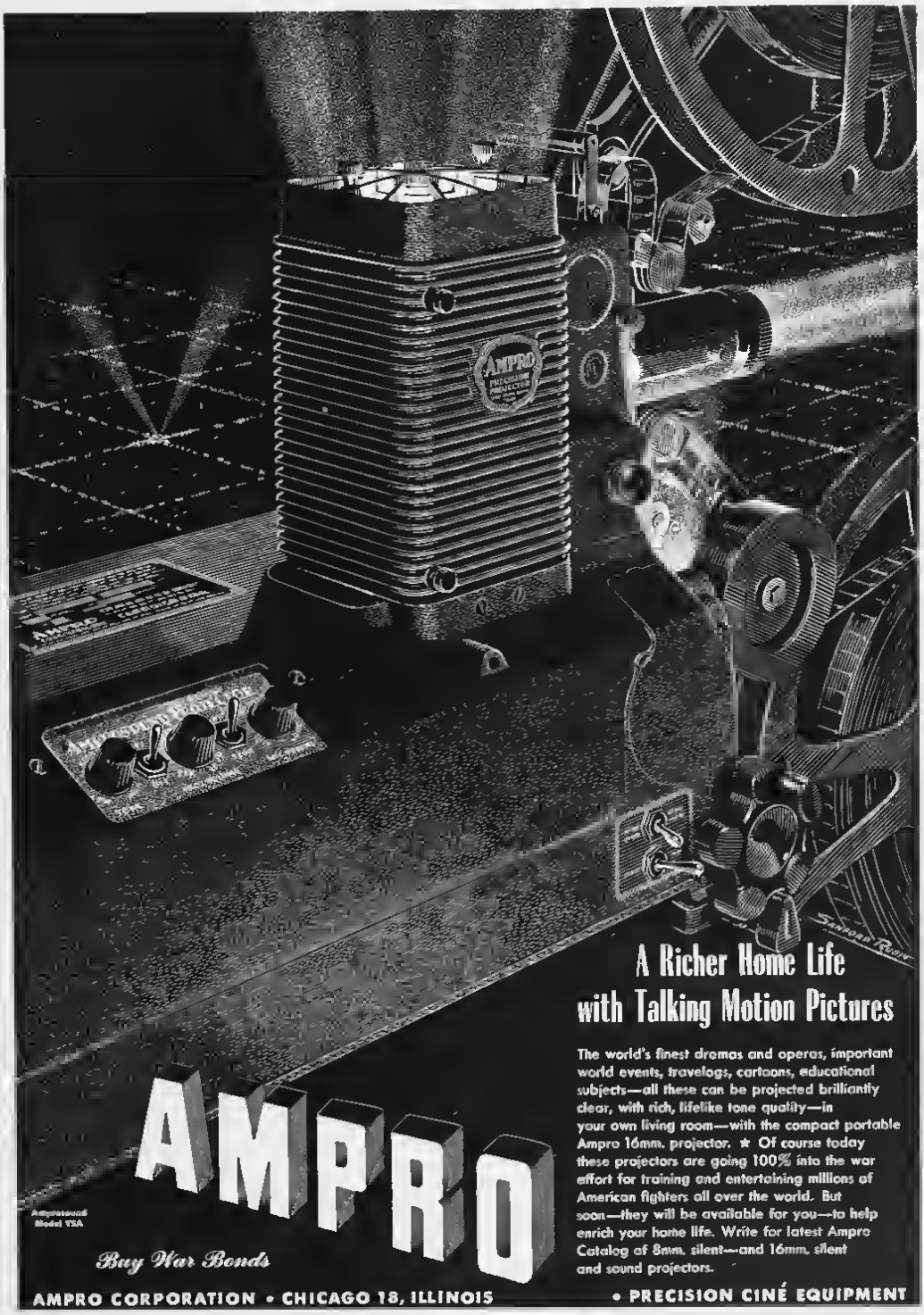
EAGLE SQUADRON (Universal)
11 reels, $17.50

America's young Eagles fly north to reinforce the heroic R.A.F. A wealth of real combat photography made over England, France and the Channel, serves at a thrill-packed background for a gripping and romantic drama of men and women at war. (Robert Stack, Diana Barrymore, Jon Hall). Available from March 19, 1944, for approved non-theatrical audiences.

New CIAA Film

Production of UNIVERSITY TOWN for the Coordinator of Inter-American Affairs has been started by The Princeton Film Center.

Depicting the wartime activities of an American college community for Latin American consumption, the picture is being made in Princeton, New Jersey.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Aces of The Camera

(Continued from Page 82)

era? You mean you have to own your own camera before you can be a cameraman? Vern was horrified. He wasn't quite able to compass the thought of owning one of those things. Why, he'd be an old man before he could save enough to buy one! And he didn't want to wait till he was an old man. So he decided to make a camera.

The first step towards the making of the camera was the purchase of a projection head from an old Selig Polyscope which, Vern had discovered, had a movement similar to that of the Pathe camera of that time. That was the beginning. But it was only a beginning. What had looked so simple when seen through the eyes of youthful enthusiasm was taking on the proportions of a major project. There was a lot of machine work needed. And while he knew exactly what he wanted, Vern couldn't quite get the tools he had to perform in the necessary manner. Expensive equipment seemed to be needed to make these parts for this projected camera. And the people who had the equipment wanted the most fantastic sums to turn out the simple things he needed.

Having no money to pay for the work, Vern decided to do the next best thing. He went around to all the companies who might possibly be equipped to do the job, and when he found the one he wanted he went to work there. The Denver Rock-Drill and Machinery Company was the favored firm. Little did they know that the bright young lad they hired on that memorable day loved them not for themselves but for their well equipped workshop. Then it was the young camera designer and builder discovered that it wasn't enough to have the use of all those wonderfully shiny tools. You had to know how to use them. People took years to learn to run some of them, he was told. Years! Vern was in a hurry. He had to have that camera. So he picked out the skilled men in the shop and artfully took them into his confidence. If the part he needed was simple to make, they would show him how. If it involved a high degree of skill they made it for him, working either on the Q.T. or in their spare time. They couldn't say "no," his enthusiasm was so contagious.

It took six months to complete all the components for Vern's first camera. It was the longest six months he had ever spent. Finally, the last part was finished by a collaborating workman during the lunch-hour. Vern didn't wait. He quit the Denver Rock-Drill and Machinery Company right then, and dashed home to assemble the parts.

The fact that the camera, when it was assembled, weighted between seventy-five and eighty pounds didn't worry him a bit. He had other worries. There was a tripod to get, somehow. And raw film stock.

What to do! Should he go and get another job, and try to save enough to buy a tripod? It seemed such a waste of time. After all, the camera was the main thing, and now that he had that he didn't think he would be able to keep his mind on another job until he had got to use it. So he decided to make a tripod. It wasn't much of a thing when it was finished. He couldn't tilt or pan with it because it had no free-head. But it was made of good, heavy hardwood slats, and it did support the great box he had built.

The raw stock offered a different problem. Eastman was still operating on a cash and carry basis, and Vern felt that he mustn't tempt the gods too much and try to make his own film. He had just about decided that he would have to go to work again, anyhow, when he ran into a man who was selling Edward's raw film. The salesman looked like a God-send. And of course, he hadn't a chance. He gave Vern 200 ft. of film just to get rid of him.

Now that he had everything he needed, he cautiously but confidentially went about making his first test. Had he come by his equipment and film more easily he might have been less painstaking. But he had learned more than how to make a camera in the last several months.

The test went to the Ford optical Co. in Denver, for developing. When, after the proper amount of time had elapsed, Vern went to pick up his film the owner of the business came out to see him and asked him to step into the office. Suddenly he was afraid. Something was the matter but he couldn't quite make up his mind what it was. All he hoped was that there were not going to be any extra charges that hadn't been figured on. His sweaty hand closed over the hoarded money in his pocket.

"Where did you get this film?" Mr. Ford asked him.

"I shot it myself."

Now he was sure trouble was brewing.

"Whose camera did you use?"

"My own."

"What is the make of the camera you own?" The man was insistant.

"It isn't any make. I made it myself."

"You made it yourself?" Mr. Ford was standing up and leaning over the desk towards him.

Then Vern knew what the trouble was. There must be a law against making cameras. And no one had bothered to tell him. He was not prepared for the next move. Mr. Ford came around the desk and put his arm around Vern's shoulder and offered him a job making cameras. It seems that the first test that young Walker had shot on his laboriously-built home-made camera was excellent. It had Mr. Ford all excited. So Vern went to work making cameras and portable projectors for the amateur trade that were marketed right up to the time of Mr. Ford's death.

During the time he worked for the Ford Optical Co. Vernon received a good camera training making tests on the camera he built. But he didn't feel he was a real, full-blown cameraman. So, after eighteen months he decided to make the plunge and be one. On a freelance basis.

The first subject he shot was the Littleton to Denver Marathon, a foot race sponsored by a Denver paper, which he subsequently sold to Gaumont News for $1.00 per foot. It was shot on that first camera. In fact he continued to use it, covering all the newsworthy events thereabouts, for the next year, and winces today as he thinks about lugging that heavy camera about the country. Although it probably had a lot to do with building up the present robust Walker physique.

After a year or so of free-lancing around Denver, Vern acquired a professional camera and a new ambition. He decided that Denver didn't offer enough. So he moved to Detroit, where he was born, and where he thought he had some connections. He had connections alright. But he had also connected with a bum camera. The Urban camera he had spent his hard-earned $350.00 for scratched so badly that it almost stunted his ambition. In fact it was so bad that he was losing 50% of his sales because of it. Fortunately, however, it was hockable. So he hocked it and went to work in the Acme Theatre in Highland Park, right across from the original Ford Automobile factory, as a projectionist.

When the Urban came out of hock it was promptly sold and replaced by a second-hand De Brie. The De Brie brought a change of fortune with it. Vern met H. N. Nelson in the camera shop and that gentleman hired him on the spot to go to work for his company, the Nelson Motion Picture Company in Windsor, Ontario. The salary was $35.00 per week, with the camera thrown in. The year was 1912.

After six months with Nelson, Vern went on an expedition to Alaska with W. E. Bock, a millionaire of Toledo, who wanted a cameraman along on the trip. As soon as he returned he went to work for the Scenic Film Co., in Atlanta, Georgia, with whom he stayed for two years. It was in Georgia that he bought another camera Bell & Howell number 64. Then, back to his home in Denver as staff cameraman for the Selig-Tribune News on a lush salary of $35.00 per week guarantee on a footage basis. Of course the film was thrown in.

When the Selig-Tribune folded in 1917 Vern Walker joined the army. He wanted to be sure that his talents were used to their best advantage in the service of his country, so he joined the Signal Corps. During the entire length of his enlistment he handled neither camera nor gun. All he did was latrine duty and shovel coal. He became pretty handy with a shovel, he says. And, probably to beat the boys to the punch, he says he still knows how to handle one.

(Continued on Page 98)

The Navy Commissioned

Kodak Medalist

"as is"

IN THIS WAR the camera has full military status. From Admirals down, Navy men carry a Kodak Medalist as casually as binoculars. It is the impartial fact-gatherer and reporter of action. You have seen plenty of Medalist shots among the terrific pictures released to newspapers and magazines. But you've only seen a fraction.

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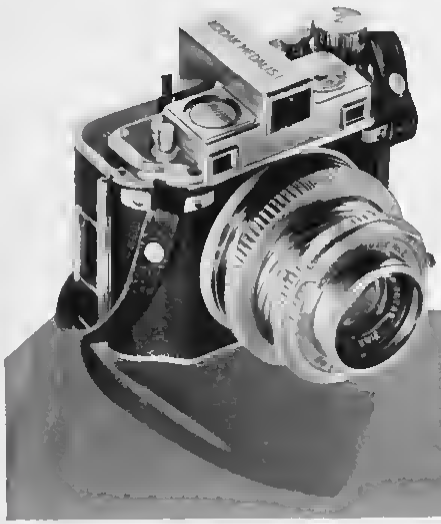
The Navy bought every Medalist available as is, ordered production stepped up. Since then wherever units of our fleet have operated—from PT boats to capital ships and aircraft—the Medalist has seen action. Twice as many were on duty the second year as the first.

After the war, the battle-conditioned Medalist will be at your service in civilian life. Eastman Kodak Company, Rochester, N.Y.



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AMONG THE MOVIE CLUBS

L. A. Prize Winners

Results of the annual film contest of the Los Angeles Cinema Club, held last December 8, have just been announced Following are the winners.

First Prize—to Guy Nelli for "Outside the Big Top". Second Prize—to Edwin E. Olson for "The Stormy Tetons". Third Prize—to Carl H Thomsen for "Summer's End" Fourth Prize—to Mrs Mildred Zimmerman for "Love Story", Fifth Prize—to Jack Shandler for "From Now on to Victory". Sixth Prize—to Newell W. Tune for "The Klamath Wonderland".

Saint Louis Club

Three outstanding films highlighted the February meeting of the Amateur Motion Picture Club of Saint Louis "Bohemian Baloney", acclaimed by many as one of the finest amateur films of 1943, received an ovation when screened It was photographed by Werner Henze, who is noted for his remarkable work Lee Franz presented "Mexican Interlude", part in color and part black and white E L Billingsley offered another treat with a film covering El Paso, Juarez, Los Angeles, San Francisco, Santa Catalina Island, Zion and Bryce Canyons and the North Rim of the Grand Canyon All in all, an unusual evening's entertainment

Southern Cinema Club

February meeting of the Southern Cinema Club was devoted to practical demonstrations of lighting indoor shots Ben Gale, the club's new president, had charge of the demonstration. Club members feel that actual demonstrations of how to make good pictures is of vital importance, and during the coming year plan many technical meetings

Long Beach Installs

A gala affair was the installation dinner dance of the Long Beach Cinema Club, held at the Lakewood Country Club.

The following officers were installed dynamic Mildred Caldwell, President; Clarence Aldrich, 1st Vice-President, Carl Weldon, 2nd Vice-President, Forrest Kellogg, Secretary, A Warren Nash, Treasurer

M.M.P.C.

"Down Mexico Way", 2-reel Kodachrome travelogue by Frank E. Gunnell, "Playing With Fire," one-reel black and white by Murray Tucker; and "With Pack-Horse and Camera in the Canadian Rockies" gave much entertainment to the members of the Metropolitan Motion Picture Club at its February meeting

Utah Cine Arts Club

The first issue of the Utah Cinemagazine, published by the Utah Cine Arts Club, has just reached our desk, and we hasten to congratulate the club and those responsible for the excellence of the magazine. It is printed on fine paper, has attractive type faces, is intelligently made up, and clearly indicates that this club is interested in doing things artistically Again, congratulations H.H

Tri-City Club

Membership of the Tri-City Cinema Club of Davenport, Rock Island and Moline is rapidly increasing Last month saw the fifty mark passed, Club officials are pointing to doubling the membership in 1944.

Five films were screened at the February meeting, following an interesting discussion on the technique of projection The films were "Mexico and the Mardi Gras", 8 mm. Kodachrome by Ray Schmidt; "Our Own Newsreel", by Dr A Mueller; "Shaw Gardens", "Davenport and Rock Island Parks", and "Chrysanthemum Show", by A. R. Bruns.

San Francisco Club

The Technical Service Committee of the Cinema Club of San Francisco is proving to be very popular with the club members. The committee functions as a panel of experts at the meetings, answering questions submitted by members. This committee, headed by Rudy Arfsten, is really giving the club members service

At the February meeting, preceded by dinner at the Hotel Stewart, a special film treat was screened It was the Eastman sound color film, "Eighteenth Century Life in Williamsburg, Virginia" The film has a delightful musical background and is excellent entertainment

Philadelphia Club

Five films, including two prize winners, were screened at the February meeting of the Philadelphia Cinema Club. The prize winners were "1939 Christmas Package", by Walt Brunner, and "Country Fair", by George Pittman Robert Henderson showed two interesting films; "Boats at Beach Haven" and "Watkins Glen". An unusually interesting film, "Scout Activities in Wartime", was shown by a representative of the Boy Scouts

Above we see members of the Brooklyn Amateur Cine Club deeply interested in a demonstration of film editing at one of its meetings They are really interested for no one looked into the camera when the picture was shot by Charles H Benjamin

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TRIPLE S PAN

REVERSIBLE FILM

Aces of The Camera

(Continued from Page 94)

Back in Denver after the war Vern went to work for a company calling itself the Art-A-Craf Film Co. He was chief cameraman and lab technician. The only trouble was that the company didn't make any pictures. All they did was sell stock. Maybe they didn't ever sell very much stock, because all they paid Vern Walker was $20.00 per week.

After he had earned $80.00 of Art-A-Craf's money and some more on the side doing newsreel stuff, Vern found himself handling a shovel again. It seems that on that February day Denver had a 6 ft. fall of snow. The first time he had to shovel himself out, in the morning, Vern took it with good grace. But when it snowed again, and he had to shovel himself out in the afternoon also, it was too much. Having spent his entire army career on the end of a shovel he couldn't face the prospect of any unnecessary shoveling. He left for Hollywood the next morning.

In Hollywood he didn't know a soul. But he did hear that a man by the name of Morris Schlank was going to make a series of Hank Mann comedies, and that he was looking for a cameraman. Vern hurried over.

Schlank looked up from the paper he was reading and glared at the jobseeker. In tones that could be described as brisk he wanted to know, "What do you want?" When Vern told Schlank that he was a cameraman, and that he was looking for a job, the producer asked him what experience he had had. Vern sensed that this was no time to put on an act. The man's manner brooked no deviation from the truth. So he told the truth. He said that his experience had been limited entirely to newsreels, commercials, and that the only production he had ever worked on never did hit the screen because it was a stock-selling proposition.

Schlank got up from his desk. "You may be no '*//¼ *$v* good," he told Vern, "but at least I will say one thing for you. You're the first man that has come after this job @c**/,o%xx job who didn't shoot the ib--64$*b@csx¼ Birth of a Nation. Your hired!"

After two or three years with Schlank, Vern went with William Fox on the Western Ave. lot. There he made the first seven pictures starring Buck Jones. Then he made westerns for Leo Maloney, and Pathe serials for C. W. Patton Productions on Poverty Row. He stayed with Miscellaneous Productions on Poverty Row until he went with Mack Sennet about 1924. For Vern those were the days when he furnished his own car and camera, as well as his services, for a slight consideration, when the production quality was questionable, but the pay (what there was of it) was steady.

It was at Sennet's that he, like so many others, first became interested in trick photography. He became so interested in it in fact that he not only worked on it all day, he adopted it as a hobby for his leisure hours. Together with boating, it is still his hobby.

Vern admits that he owes his real education in trick photography to Fred Jackman with whom he went when that worthy was making "Noah's Ark" for Warners. "Fred Jackman was the real master," he says, "and he was more than generous with his help and instruction. When ever there was a problem to be solved I got all the time and equipment I needed to work it out. And that means everything."

Vern left Warner's in 1930 to freelance. He made a picture called "Ten Nights in A Barroom." To hear him tell it, it was not much of a picture. Anyway, it served to convince him that he could fill his particular little niche much better by staying in the trick end of the business.

R. K. O. took him at his word and put him in charge of their special effects department. During the intervening years he has probably created one of the most complete and compact departments of its kind in the industry. Operating under his direction is the matte department, the photographing of miniatures, optical printing, chases, transparency process work and the miniature projection process. It's a department with a reputation.

Although he perhaps is the only department head who does his own shooting, and despite the fact that he alone gets credit for the special effects in R. K. O. pictures, Vern Walker is most emphatic about giving his crew all the glory at every opportunity that presents itself. And from all accounts he is fortunate in having a highly skilled and conscientious group of people under his direction.

As a matter of policy he steers away from the purely spectacular, as such. Because of that much of the work of the department goes unnoticed by the uninitiated. Yet the results he and his crew achieve are nothing short of spectacular for the blending of skill and artistry that mark the old maestro's camera magic and "know how", as those who are in a position to appreciate that type of work are ready to testify.

Besides creating all the illusions expected of a special effects department, Vern Walker likes to do the unexpected, also. He takes pride in the fact that his department saves the company money. For instance, when, in a certain key scene of four men playing poker, it was discovered that, in one take one of the men had left off his coat. But the error was not discovered until the set had been struck. It was only a 20 ft. flash on the screen but it would have been an expensive retake. To avoid it, Vern, by means of animation and the superimposure process, but the man's coat back on.

On another occasion a little actress was going to become a mother. But the script didn't call for it. And in the preceding and succeeding scenes there was no sign of it. But when, at the end of shooting, this particular scene had to be made it was so rehearsed that no profile view would be offered the camera. But when the film was printed it was very obvious that things hadn't worked out the way they had been rehearsed. So once more Vern officiated. And by superimposing a foreground shrub in the proper part of the scenery he saved the day, and the money. Cary Grant, during one of the pictures he made at R. K. O., had the misfortune, working under the lights, to acquire a large and unsightly underarm perspiration stain. It showed up badly on the screen, and what was worse, didn't catch up with the adjoining takes. So, you guessed it, Vern did a cleaning job. It's not hard to realize that a man like that is a useful person to have around a modern studio.—W. B.

Terrytoons Animates B & H Education Films

In connection with the training films on "Optical Craftsmanship" produced by the Bell & Howell Company for the United States Office of Education, a whole series of obscure but important problems will be brought out into the light and answered by means of animation photography prepared by the staff of Paul Terry, at the famous Terrytoons Studios at New Rochelle.

These animations, visualizing vital facts beyond the reach of the unaided eye, will cover such problems as:

(1) Why Newton's rings, measuring spaces of only a few one-millionths of an inch, reveal the actual curvature of lenses.

(2) Why three successive grinding tools, differing in radius by only a few one-thousandths of an inch, are needed to secure the specified rough grinding curve.

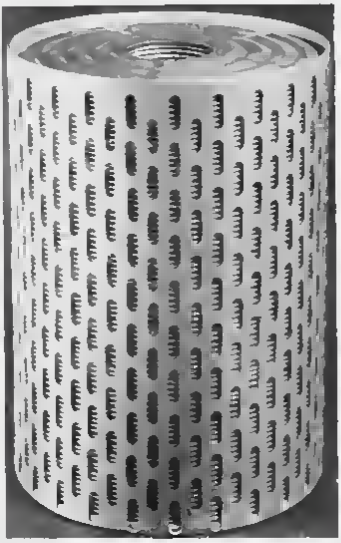
(3) Why lenses have to be turned regularly in order to assure sphericity.

(4) Why grinding tools have to be used over their entire surface, and what tool corrections have to be made when this is not done.

(5) How the geometrical axes of two lens surfaces are made to coincide to a single optical axis.

Under the supervision of J. Stanley McIntosh, visual aids specialist for the United States Office of Education, and Wm. H. Kruse, in charge of film production for Bell & Howell, animation is resorted to whenever straight photography proves inadequate. In a field like that of precision optics there are many measurements and concepts that are beyond the range of the human eye, or, in fact beyond customary measurement devices. In all such situations, beyond the facilities of ordinary visualization, animation plays an indispensible role.

New Aircraft Hydraulic Filter Offers Industrial Applications



Combining high capacity with unusual fineness of filtration, light weight, low cost and design simplicity, a new precision proprietary filter originated and perfected under the supervision of the engineering and research departments of Adel Precision Products Corp., Burbank, California, is now in production for hydraulic systems of large aircraft.

Designated as the "Micronic Filter" because it filters particles of 5 microns and larger, meeting the requirements of Army and Navy specifications, this new filter operates from 65° F below Zero to 165° F above. The filtering cartridge itself expands and contracts with the varying temperatures encountered.

The model illustrated measures 6" x 8½" weighs 2 lb and has 3,800 sq. in. of filtering area. Rated output is 1,800 GPH at 100° F with pressure drop of only 16 oz. filtering AN-VV-O-366a hydraulic fluid. Inlet opening is 1½" in diameter. Filtering flow may be arranged for either direction.

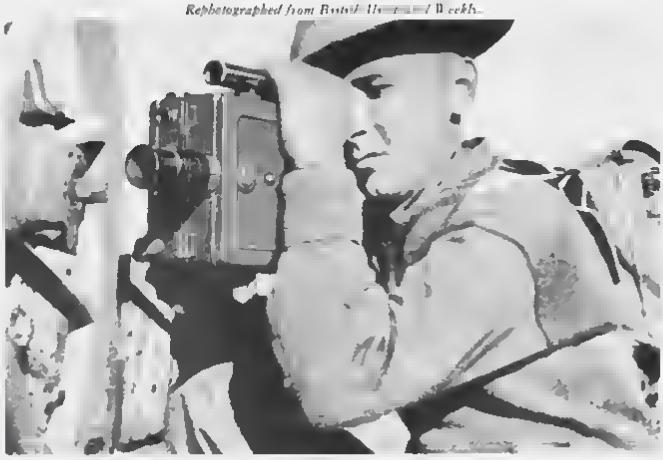
An automatic pressure relief is incorporated to bypass the full flow of liquid at any predetermined pressure setting, should line surges peak beyond a safe point. Filter operates in any position, however, generally accepted aircraft practice locates the 1½" opening at the bottom.

Dural alloy is used for the metal parts of the filter, although tooling is so arranged to permit the use of other alloys, such as stainless steels for the food industry and other individualized applications.

Filter also available in 2" and 4" sizes with capacities of 450 GPH and 900 GPH respectively.

While present use of the Micronic Filter is in aircraft hydraulic systems, interesting applications can be seen in connection with filtering problems encountered in filtering developing and fixing solutions, especially in large studios where big quantities are used.

Rephotographed from British Ultra-Speed Booklet



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W.E. Presents Booklet

"Battle Talk," a booklet in picture magazine form, which highlights both the record attained by Western Electric communications equipment on the war fronts of the world and the story of that Company's production since the year before Pearl Harbor, is being distributed to more than 82,000 employees.

Planning for 16 mm.

(Continued from Page 84)

columns provided in the form given Fig. 1 shows a sample form filled in.

The headings are self-explanatory. Each separate scene—that is, the action photographed during the interval between each start and stop of the camera—is numbered in the left-hand column. The narrow column headed *Min. Footage for Sound* denotes the footage necessary in the take to permit the full sound commentation for that scene to be added later. The footage shown in the next column is filled in immediately after the take, and must not be less than that shown in the previous column. In a picture planned along the lines recommended it is usually more. The actual wording of the commentation is found in the next column. This, of course, will be added after the picture editing is completed. If it is necessary to have any given point in the action match with a given word in the commentation, it will help to have the words read aloud during the rehearsal and also during the take. The footage needed for a given number of average words in a commentation may be calculated roughly by allotting about three words to each foot of film (1⅓ seconds at a film speed of 24 frames per second). In the average 400-foot film unit there are approximately 40 to 50 scenes.

The final column headed *Notes* will

FILM TITLE *HAND FORGING* SUBJECT: *QUENCHING & HARDENING*

SCENE NO.	ACTION	MIN. FOOTAGE FOR SOUND	FOOTAGE SHOT	COMMENTATION	NOTES
21	LS Operator places steel in water, using tongs	2½	3	We cool it suddenly by plunging in water	
22	MCU Moving the piece around in the water - inspect once or twice, & remove at end of scene	9	10½	Notice that we move the piece around in the water as it cools. This prevents the formation of steam bubbles which might cause uneven cooling	Shoot from above

FIG. 1.

take care of any special data that actual shooting conditions may bring about. This will also provide space for notations on retakes. In general, at least two takes should be made of every scene, and preferably three. This usually seems unnecessary to the film maker without much experience, but it is the best form of insurance against retakes which otherwise may be found lacking only after the editing is completed. Each scene should be carefully slated and, in editing, the first rough draft of the finished picture should be made from a work-print, leaving the slate identifications in the film until all final editing decisions have been made.

The shooting script from (Fig. 1) should be typed or multigraphed so that the long dimension of the sheet is horizontal. Multiple copies should be provided and copies in active use should be bound. A copy is given to the cameraman for study and actual use, a copy goes to the supervisor of production, while other copies, of course, are kept for records. Experience in this kind of shooting has shown that it is advisable, as far as possible, to take each scene in the sequence in which it is shown on the script. With large studio production facilities, it is feasible to group together all convenient scenes, regardless of their sequence. But for simple films not involving locations, less confusion will result if the scenes are shot in a straightforward order, one by one.

With this form as a guide, the specialist producer is now ready to work out his script in a logical form. Keeping in mind the desirability of a straightforward direct approach and avoiding the pitfalls outlined, he will select a portion of his subject and proceed to fill in a trial script to ascertain its probable length. It would be well to confine a first attempt to a subject within the length of a 400-foot unit which will be found to average about fifty scenes.

In visualizing the subject for motion picture presentation, the film planner can proceed most rapidly by imagining a situation in which he is actually showing a beginner how to work with the material illustrated. He must conceive his screen audience as the embodiment of the beginner. Since most specialist teachers have had this experience, this would seem the best introduction to the method of presentation. Experience of this kind will indicate the questions that will be asked and also what parts of the subject are to be emphasized.

In planning a logical sequence of scenes with the above in mind, the arranger should always keep before him the inherent flexibility of the motion picture camera as to *viewpoint*. The camera brings to the entire audience the visual impression gained by a single individual who must be imagined as receiving the instruction. Just as this individual would have complete freedom to look at the subject closely, or to gain an impression of the whole thing by stepping back, so the camera can emphasize or generalize by means of the long shot and the close-up. As the

(Continued on Page 102)

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Proper Placing of Reflectors

(Continued from Page 85)

The small camera with the motor and batteries to run it will weigh less than thirty pounds at the most, taking up little more space than an average suitcase.

Today when we see the beautiful color results on the screen from the sixteen mm. kodachrome films enlarged by Technicolor I wish I had been lucky enough to have had one with me for at the end of our working day we would not have been so worn out.

All this brought me to one conclusion, and knowing that color is the future and that sixteen mm. is now perfectly enlarged, the little camera has grown up to take its place alongside the thirty-five mm. studio camera. In the future should I go on any more expeditions or for stock material for myself, my equipment will include a modern sixteen mm. complete.

While we are on the subject of sixteen mm. cameras, one of the questions frequently asked by owners of small cameras is "How and where do I use the reflectors?" This is very simple as shown in Figures 1 and 2. First let us agree that in color the sunlight should be shining over one of the photographer's shoulders so as to illuminate at least 75% of what you are photographing. Should the remaining 25% of background be too dark, then reflect some light (D) into it or it will be underexposed and out of balance. If the face being lighted with three-quarter light leaves black shadows on the off side, illuminate it very, very little with a soft reflector (B) because the shadows are what make the modeling, and shadows in color give beautiful effects.

Color pictures can be made without reflectors at all and with very good results. You can plan your day's work so you can shift each set-up so that the sun will always be coming from the same angle. I used this method very successfully in a full length eighteen-hundred feet sixteen mm. Kodachrome of the Dan and Ginger Lamb picture of their trip in a small canoe from Balboa, California, to the Panama Canal. Mrs. Lamb could not stand a reflector so we discarded them entirely and by using the shadows to do the modeling as well as to hold down the exposure combined with a few Harrison color filters which enabled me to hold the film at the same color throughout the day, we had very fine results and later on when the film was projected at the White House during a personal appearance by the Lambs, the President complimented the results very highly.

I am sure should the reader wish to know more about these filters that help you hold the same color in your film from sun-up to sun-down the editor of the American Cinematographer will be glad to enlighten you further on the subject.

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Titles Tell the Story

(Continued from Page 86)

Most advanced amateurs prefer to do their titling on "positive" film, and for a very good reason ... in fact for three very good reasons. First, economy, there is no other type of film more economical to use, bar none. Secondly, high contrast; the "positive" emulsion is extremely contrasty and has fine grain, making it well suited to title making, where these qualities are important. Last, but not least, convenience, the use of this film permits all lettering to be done in black ink on white cards, the film being developed negatively, as is the usual procedure, resulting on the screen as WHITE letters on BLACK. It is the usual custom for the ciné fan to process "positive" film himself, in his own darkroom, since it is easily managed. Any person already adept at developing still pictures will have little difficulty in this respect ... following the same technique, and using the same chemicals. The inexperienced will find it advisable to learn this basic knowledge first, by studying up on the fundamentals of the darkroom procedure. Usually the film is handled in short lengths only, being spooled off the reel as needed, and developed in the length of one or two titles at a time. Those not caring to process their own, will find many independent laboratories who will develop the entire reel at a very nominal fee.

It isn't necessary to be an artist to make attractive titles. Magazine illustrations, sketches, travel folders, etc., may be used or traced as title suggestions. Indeed, many filmers find title making more fascinating and enjoyable than regular movie making! Keep your titles "matched" ... that is, use the same style and same background throughout any one film. This is important to good showmanship. Go to it now, and here's to ... BETTER TITLING!

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Let's Be Efficient

(Continued from Page 88)

what is needed in these varied fields, so can the present units supply what is needed today

These wartime needs and purposes could be discovered and there are enough patriotic, simple men and women to do the digging, the liaison job, and, it seems to me, that it all boils down to a few dozen men and women who first dig up the most important questions and then keep an eye on a production of the answers

They would not be stars, large or small, from either side of the camera They would not have to be intimates of the great, the successful You could junk the stars, for the duration if you could find a few of these simple, obstinate people

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Planning for 16 mm.

(Continued from Page 100)

individual's attention is constantly directed to the various details the camera may also record a constant variety of shots as the explanation proceeds

This will be found a satisfactory method of estimating lengths of scenes, changes of viewpoint, and the logical progress of one scene to the next, which is called continuity No claim is made that this planning process will give an automatic knowledge of the scope and limitations of the camera work itself, for the planner must consult his cameraman at all times and on all points to find out what the camera *can* and *cannot* do. In general, however he will be agreeably surprised to learn that the camera can show plainly everything a beginner can see, and he will find, in addition, that the camera can often go beyond this and can present things that are ordinarily unseen, even to abstract conceptions

In brief, experience indicates that the teacher or expert who is to guide the production of a training film should give his particular attention to the following points-

(1) Do not omit any important step in building up a concept, no matter how simple

(2) Do not write commentation that is overextended

(3) Have the visual demonstration coincide in all cases with the sound-track explanation

(4) Show no important action that is unexplained, or no explanation unaccompanied by action

(5) Time the delivery of the commentation carefully in advance while mentally or actually rehearsing the action

(6) Take full advantage of the concentrating power of the camera through the use of close-ups

(7) Consider the audience as an individual who is to receive instructions through the film in the same way as a beginner

Report from Russia

(Continued from Page 83)

the Dnieper, the steppes of the Ukraine and on the cliffs of the Crimean shores

Our camera conference is now over, and our cameramen are returning to life in the trenches under constant fire in freezing temperatures They are returning to sleepless nights and earth-rocking barrages at dawn, which prepare the way for fresh victories. This time, however, we separated in better spirits than ever before because complete victory may already be discerned. A bitter road yet remains to be travelled, but through the glare of burning villages and despite fresh sacrifices, we shall attain our end —victory, for which we have fought so long

Serials Cut Absenteeism

Ever since the "Perils of Pauline," serial film has been cutting absenteeism For many years it brought people back to the theaters regularly, to see the next breath-taking chapter. Now it is up to "Flash Gordon," along with "Riders of Death Valley" and half a hundred more modern serials, to bring the war workers back to work more regularly in the plants that are making recess movies a part of their regular personnel activities

The serials are really doing the job. In the plants of Bell & Howell, well known manufacturers of motion picture equipment and optical devices, the serials outshow any other type of film In fact, on the two days a week the serials are shown, the movie audience is double that which turns out for any other film, and the factory theater is crowded far beyond the door

The serials are shown on Mondays and Tuesdays, usually the worst days of the week with regard to absenteeism In fact the absenteeism on these two days has been reduced by 14% in comparison with a 10-week average before the serials were introduced

The Bell & Howell Company has its own Film Library which is available also to other war plants An exclusive feature of this film service is that all serials, since the outbreak of the war, are marked so that the chapter can be split over two days showing, allowing not more than 10 minutes of film for each break period

OWI Films With DeVry

DeVry Films & Laboratories, a subsidiary of DeVry Corporation, has been named a depository for Office of War Information films, which are now available It is also announced that the 16mm film-on-sound edition of the British war epic "Desert Victory" is available through DeVry Films & Laboratories

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A KNICKERBOCKER HOLIDAY

Behind the scenes during the filming of "Knickerbocker Holiday" in which Nelson Eddy portrays a New Amsterdam printer in the romantic comedy with music which is being released by United Artists. Camera crew filming the picture are Philip Tennure, Director of Photography, Jack Russell, operator and Sam Rosen, assistant. Critics have given high praise to the cinematography in this film.

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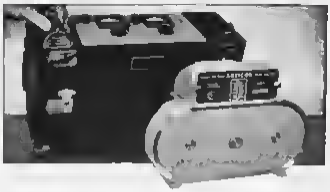

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Berger The Cameraman

[Continued from Page 79]

philanthropy. Its purpose is to assist young women to obtain a complete education in nursing. It is open without restrictions to every girl who wants to be a nurse, or who needs funds to complete her course, and even to graduate nurses who wish to further their knowledge in some specialized field of nursing.

The Foundation extends help in the form of a loan, rather than as a scholarship. In this way it is able to maintain a revolving fund. Not only that, but Bergen feels that there are so many other organizations to help a girl who is smart enough to win a scholarship. He is particularly interested in being able to assist those "average" girls, many of them living on farms or in small out-of-the-way communities, who have not had sufficient advantages to be successful in competing for a scholarship, or who do not come within the frequently narrow scope of other foundations who assist girls to a nursing career only if they are of certain faith, or who can conform to other restricting limitations.

All a girl needs to get help from Bergen is proof that she has met the entrance examinations of the hospital of her choice. Then she gets a check to cover the expenses of her first year of training. When she has completed that, another check is forwarded to her to cover her second year, and again for the third year. There is nothing to sign, no interest is charged, and if for some unforeseen reason the student finds it impossible to continue her training the debt to the Foundation is cancelled. Otherwise, she repays the amount advanced her, at the rate of ten per cent of her monthly income.

For over four years Bergen has been helping ambitious nurses in this fashion. At the present time he has a hundred girls in school and thirty graduates in twenty-eight hospitals.

The amazing thing is that this pet project of Bergen's, which is a model of practical humanitarianism and operational efficiency that might well serve as a pattern for more highly publicised philanthrophies, which offers a helping hand with no strings attached, has been spitefully opposed by similar organizations doing in a more limited sense the same thing. One would think that those who profess to do good works would cheer the efforts of any other who shows inclination to share the burden; there is so much good that needs doing. But it seems that petty jealousies are as rampant in the realm of philanthropy as they are in any other line of human endeavor. Even the motion pictures for nurse training, that are now fulfilling an important service by helping to train corpsmen for the army and navy, were assailed by some who went so far as to question the value of motion pictures for training purposes! It's a sad commentary on human behaviors.

But Bergen is undismayed. His Foundation continues to be of service. No one receives a salary for the administration of its affairs and his critics can't find anything wrong with any part of it. He has even been reluctant to release information about it for fear that the finger of scorn will be pointed at him and the voice say "publicity."

In his private office he has a great chart on the wall composed of the pictures of all the girls who are going through training with the help of the Foundation, and the name of the hospital to which they are accredited. No impersonal Prince Bountiful, Bergen follows their career faithfully, and corresponds with them at regular intervals.

"I don't make an outright grant," says Edgar, "because for one thing it enables me to help more girls. And if it looks anything like charity it would cut me off from those girls I want most to help. Besides," said the sage of Radio City, "charity rots character. On the other hand, when large sums are collected for the help given its often no help at all."

"For a thousand dollars," he went on, "I can help three girls to a useful career; thereby insuring three lives against want from the lack of training. Even if they don't continue in nursing they are better mothers and better citizens. I don't know a more efficient use for a thousand dollars or a better return on the money."

Edgar is proud of the fact that he was three years ahead of Uncle Sam who came out later with the same idea, but with more exacting entrance requirements in the Cadet Nursing Corps. He was a year and a half ahead of Civilian Pilot Training, when, during the time he himself was taking flying lessons, he ran into a lot of young fellows whom he helped to complete their training in instrument flying so that they could get jobs with the airlines. But that, together with the students he is putting through Northwestern University, his alma mammy, is another story.

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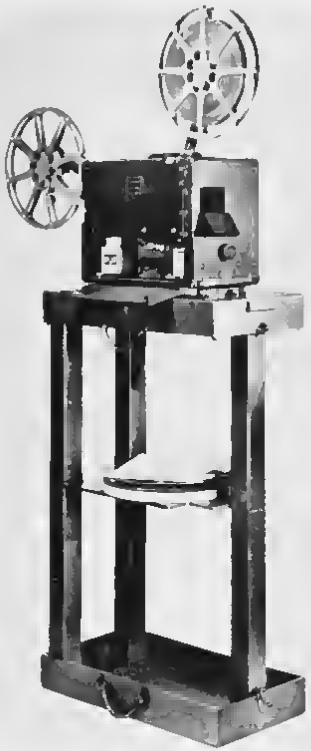
B & H Announces Filmo Porta-Stand



Bell & Howell has added another product to its long list of precision-made equipment—the double-duty Filmo Porta-Stand—available without a priority.

Closed, the unit looks like a suitcase, is easily carried by means of its leather handle. Opened, it is a stand 42" high, with a platform 12½"x24½" which accommodates any size projector—8 mm or 16 mm, sound or silent, and boasts a convenient shelf for holding reels and cans during a show. Added to the movie fan's collection of equipment, the Porta-Stand puts an end to furniture rearranging and book stacking on chairs or table for proper projection height. Furthermore, it serves admirably as a speaker's stand.

Constructed of rigid basswood-plywood finished in lustrous brown lacquer, with durable steel hardware used throughout, the Porta-Stand utilizes non-critical materials and, as stated above, is available without priority, even for home use.

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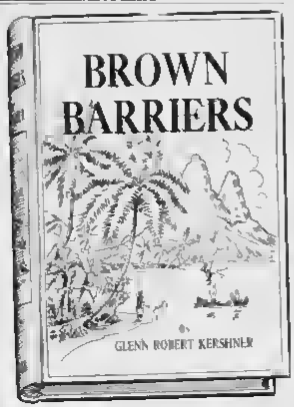

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The author weaves a tale so vivid that the reader paces holystoned decks, and tosses copper pannikins with deck hands, praying for winds to fill empty sails —Virginia Hall Trannett, Col Eve Dispatch, Columbus, Ohio

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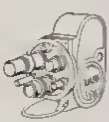

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